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THE PLANT DISEASE REPORTER

Issued By

Division of Mycology and Disease Survey

BUREAU OF PLANT INDUSTRY

UNITED STATES DEPARTMENT OF AGRICULTURE

Supplement 118

Crop Losses From Plant Diseases in the
United States

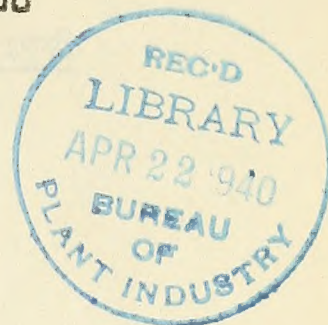
1938

December 31, 1939.

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The Plant Disease Reporter is issued as a service to plant pathologists throughout the United States. It contains reports, summaries, observations, and comments submitted voluntarily by qualified observers. These reports often are in the form of suggestions, queries, and opinions, frequently purely tentative, offered for consideration or discussion rather than as matters of established fact. In accepting and publishing this material the Division of Mycology and Disease Survey serves merely as an informational clearing house. It does not assume responsibility for the subject matter.



CROP LOSSES FROM PLANT DISEASES IN THE UNITED STATES IN 1938

Compiled by

H. A. Edson and Jessie I. Wood

Plant Disease Reporter
Supplement 118

December 31, 1939

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WHEAT

Table 1. Estimated reduction in yield from scab (*Gibberella zeae*), leaf rust (*Puccinia rubigo-vera tritici*), stem rust (*P. graminis*), bunt (*Tilletia spp.*) loose smut (*Ustilago tritici*), foot rots (various fungi), and other diseases, 1938.

Pro-		Estimated reduction in yield due to diseases											
duction:		Scab	Leaf rust	Stem rust	Bunt	Loose smut	Foot rots	All diseases					
: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: bushels :	: bushels :	: bushels :	: bushels :	: bushels :
State :	bushels :	% :	bushels :	% :	bushels :	% :	bushels :	% :	bushels :	% :	bushels :	% :	bushels :
*Maine :	68 :	- :	- :	- :	- :	- :	- :	- :	- :	- :	- :	- :	- :
N. Y. :	7,533 :	1. :	125:25 :	3,113: 5. :	623: 3. :	374: 1. :	125: 0.5 :	62:39.5 :	4,921				
*N. J. :	1,342 :	- :	- :	- :	- :	- :	- :	- :	- :	- :	- :	- :	- :
Pa. :	22,032 :	0.1 :	27:10. :	2,713: 2.5 :	678: 2.5 :	678: 1.7 :	461: t :	18.8 :	5,100				
N. Atl. :	30,975 :	0.4 :	152:14.7 :	5,826: 3.3 :	1,301: 2.7 :	1,052: 1.5 :	586: 0.2 :	62:25.4 :	10,021				
Ohio :	46,420 :	0.5 :	242: 2.5 :	1,211: t :	+ :	485: 0.2 :	97: t :	4.2 :	2,035				
Ind. :	30,240 :	1. :	318: 3. :	955: t :	+ :	1. :	318: - :	5. :	1,591				
Ill. :	42,550 :	1.2 :	662:15. :	8,278: 2. :	1,104: t :	+ :	1,104: - :	22.9 :	12,638				
Mich. :	19,519 :	0.3 :	60: 0.1 :	20: 1. :	201: 1. :	201: 0.1 :	20: 0.1 :	20: 3. :	602				
Wis. :	2,007 :	1. :	22: t :	+ :	172: 1. :	22: 0.2 :	4: t :	9.9 :	220				
Minn. :	38,948 :	7. :	3,325: 8. :	3,800: t :	+ :	0 :	0 :	1,425:18. :	8,550				
Iowa :	9,586 :	5. :	831:28. :	4,652: 1. :	166: 1. :	166: 1. :	166: 5. :	831:42.3 :	7,029				
Mo. :	31,600 :	- :	- :	8,427: 5. :	2,107: - :	- :	- :	25. :	10,534				
N. D. :	79,839 :	0.3 :	271: 2. :	1,804: 6.2 :	5,593: 0.5 :	451: 0.5 :	451: 2. :	1,804:11.5 :	10,374				
S. D. :	27,777 :	- :	- :	- :	889: - :	- :	- :	3.1 :	889				
Nebr. :	55,714 :	- :	20: - :	14,857: 5. :	3,714: - :	- :	- :	25. :	18,571				
Kans. :	152,184 :	t :	+ :	21,741: 3. :	5,435: 0.5 :	906: 0.5 :	906: - :	16. :	28,988				
N. Cent. :	536,384 :	0.9 :	5,731:10.3 :	65,745: 3. :	19,381: 0.3 :	2,231: 0.5 :	3,066: 0.6 :	4,080:16.0 :	102,021				
*Del. :	1,660 :	- :	- :	- :	- :	- :	- :	- :	- :				
Md. :	9,420 :	1. :	102: 2. :	204: t :	+ :	153: 2. :	204: 0 :	7.5 :	765				
Va. :	8,526 :	3. :	334: 5. :	557: 5. :	557: 2.5 :	279: 1. :	111: 1. :	111:23.5 :	2,617				
W. Va. :	2,340 :	- :	- :	- :	24: - :	- :	- :	1. :	24				
N. C. :	5,440 :	2. :	124: 2. :	124: - :	- :	62: 1. :	62: 1. :	62:12.5 :	776				
*S. C. :	1,771 :	- :	- :	- :	- :	- :	- :	- :	- :				
Ga. :	1,700 :	- :	25: - :	583: 0.1 :	2: - :	- :	47: - :	27.1 :	632				
S. Atl. :	30,857 :	1.7 :	560: 4.5 :	1,468: 1.8 :	583: 1.5 :	494: 1.3 :	424: 0.5 :	173:14.9 :	4,814				

Wheat (Continued).

Estimated reduction in yield due to diseases													
Pro- duction:	Scab	Leaf rust	Stem rust	Bunt	Loose smut	Foot rots	All diseases						
State	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :	: 1,000 :
:Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:	% :Bushels:
Ky.	: 8,280: t :	+ : 4. :	385: t :	+ : 1. :	96: 2. :	193: - :	- : 14. :	- : 1,348	- : 14. :	- : 1,348	- : 14. :	- : 1,348	- : 1,348
Tenn.	: 5,401: 5. :	365: 20. :	1,460: t :	+ : 1. :	73: t :	+ : - :	- : 26. :	- : 1,898	- : 26. :	- : 1,898	- : 26. :	- : 1,898	- : 1,898
*Ala.	: 65: - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :
Ark.	: 595: t :	+ : 30. :	259: t :	+ : t :	+ : 1. :	9: - :	- : 31. :	- : 268	- : 31. :	- : 268	- : 31. :	- : 268	- : 268
Okla.	: 58,322: - :	- : 27. :	22,988: t :	+ : 2. :	1,703: 2.5:	2,129: t :	- : 31.5:	- : 26,820	- : 31.5:	- : 26,820	- : 31.5:	- : 26,820	- : 26,820
Tex.	: 35,046: - :	- : 5. :	1,856: 0.6:	223: - :	- : - :	- : - :	- : 5.6:	- : 2,079	- : 5.6:	- : 2,079	- : 5.6:	- : 2,079	- : 2,079
S. Cent.	: 107,709: 0.3:	365: 19.2:	26,948: 0.2:	223: 1.3:	1,872: 1.7:	2,331: - :	- : 23.1:	- : 32,413	- : 23.1:	- : 32,413	- : 23.1:	- : 32,413	- : 32,413
Mont.	: 72,349: 0 :	0 : t :	+ : 5. :	3,848: 1. :	770: t :	+ : t :	+ : 6. :	+ : 4,618	+ : 6. :	+ : 4,618	+ : 6. :	+ : 4,618	+ : 4,618
Idaho	: 29,848: 0 :	0 : t :	+ : 1. :	308: 2. :	615: t :	+ : - :	- : 3. :	- : 923	- : 3. :	- : 923	- : 3. :	- : 923	- : 923
Wyo.	: 4,515: 0 :	0 : 0.5:	23: t :	+ : 1. :	46: - :	- : - :	- : 1.5:	- : 69	- : 1.5:	- : 69	- : 1.5:	- : 69	- : 69
Colo.	: 19,415: 0 :	0 : 2. :	467: .4:	93: 4.5:	1,051: - :	- : 10. :	- : 16.9:	- : 3,947	- : 10. :	- : 3,947	- : 16.9:	- : 3,947	- : 3,947
*N.M.	: 2,680: 0 :	0 : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :
*Ariz.	: 1,100: 0 :	0 : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :
*Utah	: 6,573: 0 :	0 : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :
*Nev.	: 453: 0 :	0 : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :
Wash.	: 51,643: 0 :	0 : 0.1:	54: 0.3:	162: 2. :	1,080: t :	+ : 1.6:	- : 4.4:	- : 2,376	- : 1.6:	- : 2,376	- : 4.4:	- : 2,376	- : 2,376
Ore.	: 23,567: 0 :	0 : 0.2:	49: t :	+ : 1. :	244: t :	+ : 1.8:	- : 3.4:	- : 830	+ : 1.8:	- : 830	- : 3.4:	- : 830	- : 830
*Calif.	: 12,733: 0 :	0 : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :	- : - :
Far West	: 224,876: 0 :	0 : 0.3:	593: 2.1:	4,411: 1.8:	3,806: - :	- : 1.7:	- : 6.0:	- : 12,763	- : 1.7:	- : 12,763	- : 6.0:	- : 12,763	- : 12,763
U.S.	: 930,801: 0.7:	6,808: 9.6:	100,580: 2.5:	25,899: 0.9:	9,455: 0.6:	6,407: 0.8:	- : 15.5:	- : 162,032	- : 0.8:	- : 162,032	- : 15.5:	- : 162,032	- : 162,032

*Omitted from calculations for U. S. and section percentage loss.

Percentage of total listed production in States reporting, 97.

Table 2. Estimated reduction in yield from stripe (*Helminthosporium gramineum*), foot rot and seedling blight (various organisms), loose smut (*Ustilago* spp.), covered smut (*U. hordei*).

State	Production: 1,000 Bushels	Estimated reduction in yield due to diseases							
		Stripe		Foot rots		Loose smut		Covered smut	
		: 1,000 :		: 1,000 :		: 1,000 :		: 1,000 :	
		% : Bushels :	% : Bushels :	% : Bushels :	% : Bushels :	% : Bushels :	% : Bushels :	% : Bushels :	% : Bushels :
*Maine	116	-	-	-	-	-	-	-	-
*Vermont	145	-	-	-	-	-	-	-	-
New York	4,307	5.	329	-	-	2.5:	164	2.	132
*New Jersey	62	-	-	-	-	-	-	-	-
Pa.	2,036	0.2:	5	-	-	4.8:	111	4.	93
N. Atlantic:	6,666	4.2:	334	-	-	3.5:	275	2.8:	225
Ohio	700	-	-	-	-	-	-	-	-
Indiana	500	t	+	-	-	t	+	t	+
Illinois	4,650	t	+	-	-	0.2:	11	0.5:	27
Michigan	4,565	0.1:	5	0.1:	5	0.1:	5	0.2:	9
Wisconsin	24,286	0.5:	131	t	+	1.	262	1.2:	314
Minnesota	48,020	t	+	1.	493	t	+	0.5:	246
Iowa	12,963	0.1:	17	10.	1,699	0.5:	85	2.5:	425
*Missouri	1,938	-	-	-	-	-	-	-	-
N. D.	21,318	-	-	0.5:	110	0.1:	22	0.8:	176
*S. D.	28,930	-	-	-	-	-	-	-	-
Nebraska	21,526	-	-	-	-	-	-	-	-
Kansas	6,681	t	+	-	-	1.	69	1.5:	104
N. Central	176,077	0.1:	153	1.5:	2,307	0.3:	454	0.8:	1,301
Maryland	1,250	t	+	-	-	3.	41	3.	41
Virginia	1,320	2.	32	0.5:	8	2.5:	41	3.	49
*W. Va.	140	-	-	-	-	-	-	-	-
N. C.	190	3.	6	1.	2	1.	2	1.	2
S. Atlantic:	2,900	1.2:	38	0.3:	10	2.6:	84	2.9:	92
*Kentucky	936	-	-	-	-	-	-	-	-
Tennessee	792	-	-	-	-	5.	47	10.	93
Oklahoma	3,420	t	+	1.	36	2.	73	3.	109
*Texas	2,363	-	-	-	-	-	-	-	-
S. Central	7,511	-	-	-	36	2.6:	120	4.4:	202
Montana	3,828	0.1:	4	t	+	t	+	1.	39
Idaho	4,644	t	+	-	-	-	-	t	+
Wyoming	1,716	t	+	-	-	t	+	1.	17
Colorado	11,985	-	-	5.	638	t	+	1.	128
*N. M.	163	-	-	-	-	-	-	-	-
*Arizona	806	-	-	-	-	-	-	-	-
*Utah	2,542	-	-	-	-	-	-	-	-
*Nevada	266	-	-	-	-	-	-	-	-
Washington	2,080	0.1:	2	0.7:	15	0.2:	4	0.2:	4
Oregon	3,400	t	+	0.7:	25	-	-	0.1:	4
*California	27,550	-	-	-	-	-	-	-	-
Far Western:	58,985	t	6	2.4:	678	t	4	0.7:	192
U. S.	252,139	0.3:	531	1.5:	3,031	0.5:	937	1.3:	2,012

*Omitted in calculations for United States and section percentage loss.
Percentage of total listed production in States reporting, 74.

BARLEY (Continued)

Table 2 (Continued). Scab (*Gibberella zeae*), powdery mildew (*Erysiphe graminis*), leaf rusts (*Puccinia anomala* and *P. rubigo-vera tritici*), stem rust (*P. graminis*), and other diseases, 1938.

State	Estimated reduction in yield due to diseases										
	Scab		Powdery Mildew		Leaf rusts		Stem rust		All diseases		
	: 1,000 :		: 1,000 :		: 1,000 :		: 1,000 :		: 1,000 :		
	%	Bushels	%	Bushels	%	Bushels	%	Bushels	%	Bushels	
Maine	-	-	-	-	-	-	-	-	-	-	
Vermont	-	-	-	-	-	-	-	-	-	-	
New York	t	+	10.	658	10.	658	5.	329	34.5	2,270	
New Jersey	-	-	-	-	-	-	-	-	-	-	
Pa.	t	+	0.2	5	1.	23	t	+	12.2	283	
N. Atlantic	t	+	8.4	663	8.6	681	4.2	329	32.3	2,553	
Ohio	-	-	-	-	-	-	t	+	t	+	
Indiana	t	+	t	+	t	+	t	+	t	+	
Illinois	6.	321	0.5	27	5.	268	1.	54	13.2	708	
Michigan	0.3	14	-	-	-	-	t	+	0.9	43	
Wisconsin	2.5	654	1.	262	0	0	t	+	7.2	1,885	
Minnesota	0.5	246	-	-	t	+	0.5	246	2.5	1,231	
Iowa	5.0	850	1.5	255	2.1	357	1.	170	23.7	4,028	
Missouri	-	-	-	-	-	-	t	+	-	-	
N. D.	-	-	0	0	-	-	1.	220	3.	660	
S. D.	-	-	-	-	-	-	t	+	-	-	
Nebraska	-	-	-	-	1.	220	1.	220	2.	440	
Kansas	-	-	-	-	t	+	1.	69	3.5	242	
N. Central	1.3	2,085	0.4	544	0.5	845	0.6	979	6.	9,237	
Maryland	1.5	20	t	+	-	-	t	+	7.5	102	
Virginia	2.	32	2.5	41	3.	49	2.	32	18.5	300	
W. Va.	-	-	-	-	-	-	-	-	-	-	
N. C.	0.5	1	1.	2	1.	2	-	-	9.5	19	
S. Atlantic	1.7	53	1.4	43	1.6	51	1.	32	13.3	421	
Kentucky	-	-	-	-	-	-	-	-	-	-	
Tennessee	-	-	-	-	-	-	-	-	15.	140	
Oklahoma	-	-	t	+	t	+	t	+	6.	218	
Texas	-	-	-	-	-	-	-	-	-	-	
S. Central	-	-	-	-	-	-	-	-	7.8	358	
Montana	0	0	-	-	-	-	t	+	1.1	43	
Idaho	0	0	t	+	-	-	t	+	t	+	
Wyoming	0	0	-	-	-	-	t	+	1.	17	
Colorado	0	0	-	-	-	-	t	+	6.	766	
New Mexico	0	0	-	-	-	-	-	-	-	-	
Arizona	0	0	-	-	-	-	-	-	-	-	
Utah	0	0	-	-	-	-	-	-	-	-	
Nevada	0	0	-	-	-	-	-	-	-	-	
Washington	-	-	0.8	17	t	+	0.1	2	3.9	82	
Oregon	-	-	0.6	21	t	+	t	+	3.	107	
California	-	-	-	-	-	-	-	-	-	-	
Far Western	-	-	0.1	38	-	-	t	2	3.5	1,015	
U. S.	1.1	2,138	0.6	1,288	0.8	1,577	0.7	1,342	6.9	13,584	

RUE

Table 3. Estimated reduction in yield from smut (*Urocystis occulta*), ergot (*Claviceps purpurea*), leaf rust (*Puccinia rubigo-vera secalis*).

State	Production 1,000 Bushels	Estimated reduction in yield due to diseases					
		Smut		Ergot		Leaf rust	
		1,000		1,000		1,000	
		%	Bushels	%	Bushels	%	Bushels
Massachusetts	-	-	-	t	+	t	+
New York	323	t	+	t	+	-	-
Pennsylvania	884	t	+	t	+	3.	29
*Ohio	351	-	-	-	-	-	-
*Indiana	1,265	-	-	-	-	-	-
*Illinois	1,269	-	-	-	-	-	-
Michigan	1,552	0.1	2	0.1	2	0.1	2
Wisconsin	4,290	0	0	2.	88	0.5	22
Minnesota	9,846	0	0	1.	99	0	0
Iowa	1,566	0	0	0.5	9	0.1	2
*Missouri	340	-	-	-	-	-	-
North Dakota	12,974	-	-	t	+	-	-
*South Dakota	10,176	-	-	-	-	-	-
*Nebraska	4,796	-	-	-	-	-	-
*Kansas	682	-	-	-	-	-	-
*Delaware	98	-	-	-	-	-	-
*Maryland	175	-	-	-	-	-	-
Virginia	437	0.1	+	0.1	+	1.	5
*West Virginia	88	-	-	-	-	-	-
North Carolina	406	-	-	-	-	-	-
*South Carolina	81	-	-	-	-	-	-
Georgia	114	-	-	-	-	1.	1
*Kentucky	225	-	-	-	-	-	-
*Tennessee	273	-	-	-	-	t	+
Oklahoma	340	-	-	-	-	3.	11
*Texas	42	-	-	-	-	-	-
Montana	592	-	-	t	+	-	-
*Idaho	96	-	-	-	-	-	-
*Wyoming	195	-	-	-	-	-	-
*Colorado	348	-	-	-	-	-	-
*Utah	36	-	-	-	-	-	-
Washington	110	-	-	-	-	t	+
Oregon	625	-	-	-	-	t	+
*California	70	-	-	-	-	-	-
United States	55,039	t	2	0.6	198	0.2	72

*Omitted from calculations for United States percentage loss.

Percentage of total listed production in States reporting, 62.

RYE (Continued)

Table 3 (Continued). Stem rust (Puccinia graminis), foot rot and seedling blights (various organisms), anthracnose (Colletotrichum graminicola), and other diseases, 1938.

State	Estimated reduction in yield due to disease							
	Stem rust		Foot rots		Anthracnose		All diseases	
	1,000		1,000		1,000		1,000	
	%	Bushels	%	Bushels	%	Bushels	%	Bushels
Massachusetts	1.	+	5.	+	-	-	7.	+
New York	1.	3	t	+	-	-	1.	3
Pennsylvania	0.5	5	-	-	4.	38	7.5	72
Ohio	t	+	-	-	-	-	-	-
Indiana	t	+	-	-	-	-	-	-
Illinois	t	+	-	-	-	-	-	-
Michigan	t	+	-	-	0.1	2	0.4	8
Wisconsin	0	0	t	+	t	+	2.5	110
Minnesota	0	0	t	+	-	-	1.	99
Iowa	1.	18	10.	177	0.1	2	11.7	208
Missouri	0	0	-	-	-	-	-	-
North Dakota	0	0	t	+	-	-	t	+
South Dakota	0	0	-	-	-	-	-	-
Nebraska	t	+	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-
Virginia	1.	5	0.5	2	0.1	+	2.8	12
West Virginia	-	-	-	-	-	-	-	-
North Carolina	0.5	2	5.	23	2.	9	10.5	48
South Carolina	-	-	-	-	-	-	-	-
Georgia	-	-	-	-	-	-	1.	1
Kentucky	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-
Oklahoma	1.	4	-	-	-	-	4.	15
Texas	-	-	-	-	-	-	-	-
Montana	0	0	t	+	-	-	t	+
Idaho	-	-	-	-	-	-	-	-
Wyoming	0	0	-	-	-	-	-	-
Colorado	-	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-
Washington	t	+	-	-	-	-	t	+
Oregon	t	+	t	+	-	-	t	+
California	-	-	-	-	-	-	-	-
United States	0.1	37	0.6	202	0.1	51	1.7	576

Table 4. Estimated reduction in yield from loose smut (*Ustilago avenae*), covered smut (*U. levis*), stem rust (*Puccinia graminis*).

State	Production 1,000 Bushels	Estimated reduction in yield due to diseases					
		Loose smut		Covered smut		Stem rust	
		%	Bushels	%	Bushels	%	Bushels
*Maine	3,876	t	+	-	-	-	-
*New Hampshire	288	-	-	-	-	-	-
*Vermont	1,736	-	-	-	-	-	-
Massachusetts	204	-	-	12.	31	1.	3
*Rhode Island	60	-	-	-	-	-	-
*Connecticut	180	-	-	-	-	-	-
New York	26,588	3.5	1,443	-	-	2.	824
*New Jersey	1,224	-	-	-	-	-	-
Pennsylvania	30,652	14.	5,304	-	-	3.	1,137
N. Atlantic	64,808	8.5	6,747	-	31	2.5	1,964
Ohio	36,993	1.	383	1.	383	t	+
Indiana	34,060	1.	351	1.	351	t	+
Illinois	110,534	1.5	2,431	2.2	3,566	10.	16,207
Michigan	42,840	0.3	130	0.2	87	0.5	217
Wisconsin	76,105	5.	5,285	3.	3,171	t	+
Minnesota	128,700	2.	2,860	-	-	t	+
Iowa	198,086	3.5	11,892	0.5	1,699	0.5	1,699
Missouri	45,600	-	-	-	-	1.	461
North Dakota	31,298	0.5	159	0.5	159	0	0
*South Dakota	46,050	-	-	-	-	t	+
*Nebraska	55,076	-	-	-	-	t	+
Kansas	35,673	2.3	1,029	-	-	3.	1,343
N. Central	841,015	2.5	24,520	1.0	9,416	2.0	19,927
*Delaware	96	-	-	-	-	-	-
Maryland	1,312	5.	71	-	-	t	+
Virginia	1,978	3.	69	3.5	81	4.	92
*West Virginia	1,806	-	-	-	-	0	0
North Carolina	5,566	1.	59	-	-	-	-
*South Carolina	10,648	-	-	-	-	-	-
Georgia	9,585	3.	303	-	-	-	-
*Florida	140	-	-	-	-	-	-
S. Atlantic	31,131	2.5	502	-	81	0.5	92
*Kentucky	1,209	-	-	-	-	-	-
Tennessee	1,700	3.	53	-	-	-	-
*Alabama	3,168	-	-	-	-	-	-
*Mississippi	1,593	-	-	-	-	-	-
Arkansas	2,565	1.	33	1.	33	t	+
*Louisiana	1,350	-	-	-	-	-	-
Oklahoma	27,447	8.	2,495	2.	624	t	+
*Texas	36,920	-	-	-	-	t	+
S. Central	75,952	-	2,581	-	657	-	-
Montana	8,928	0.1	9	0.1	9	0	0
Idaho	4,914	t	+	t	+	-	-
Wyoming	3,078	t	+	1.	31	0	0
*Colorado	5,053	t	+	-	-	0	0
*New Mexico	660	-	-	-	-	-	-
*Arizona	260	-	-	-	-	-	-
*Utah	1,092	-	-	-	-	-	-
*Nevada	120	-	-	-	-	-	-
Washington	6,715	0.1	7	0.2	14	0.4	28
Oregon	6,725	t	+	0.1	7	0.2	14
*California	3,388	-	-	-	-	-	-
Far Western	40,933	-	16	-	63	-	42
United States	1,053,839	3.0	34,366	1.0	10,246	1.9	22,025

*Omitted in calculations for United States and section percentage loss.
Percentage of total listed production in States reporting, 83.

Table 4 (Continued). Crown rust (*Puccinia coronata*), foot and root rots (*Fusarium*, *Pythium*), blast (non-parasitic), and other diseases, 1938.

State	Estimated reduction in yield due to diseases							
	Crown rust		Foot & root rots ^{a/}		Blast		All diseases	
	%	1,000 Bushels	%	1,000 Bushels	%	1,000 Bushels	%	1,000 Bushels
Maine	-	-	-	-	-	-	-	-
N. H.	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-
Mass.	2.	5	5.	13	-	-	21.	55
R. I.	-	-	-	-	-	-	-	-
Conn.	-	-	-	-	-	-	-	-
N. Y.	25.	10,306	-	-	5.	2,061	35.5	14,634
N. J.	-	-	-	-	-	-	-	-
Pa.	6.1	38	-	-	1.	379	19.1	7,237
N. Atlantic	13.	10,349	-	13	3.1	2,440	27.6	21,926
Ohio	1.5	575	-	-	-	-	3.5	1,341
Indiana	1.	351	-	-	t	+	3.	1,053
Illinois	2.5	4,052	-	-	15.	24,311	31.8	51,539
Michigan	0.1	43	0.1	43	-	-	1.4	607
Wisconsin	20.	21,140	0	0	0	0	28.	29,596
Minnesota	8.	11,440	t	+	-	-	10.	14,300
Iowa	24.	31,545	12.5	42,471	.5	1,699	41.7	141,685
Missouri	-	-	-	-	-	-	1.	461
N. D.	0.5	159	-	-	0	0	1.5	477
S. D.	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-
Kansas	15.	6,714	-	-	-	-	20.3	9,086
N. Central	12.7	126,019	4.3	42,514	2.6	26,010	25.3	250,145
Delaware	-	-	-	-	-	-	-	-
Maryland	3.	43	-	-	-	-	8.	114
Virginia	3.	69	t	+	0.5	12	14.	323
W. Va.	-	-	-	-	-	-	-	-
N. C.	1.	59	0.5	29	-	-	5.5	324
S. C.	-	-	-	-	-	-	-	-
Georgia	2.	202	-	-	-	-	5.	505
Florida	-	-	-	-	-	-	-	-
S. Atlantic	1.9	373	-	29	-	12	6.3	1,266
Kentucky	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	3.	53
Alabama	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-
Arkansas	20.	658	-	-	t	+	22.	724
Louisiana	-	-	-	-	-	-	-	-
Oklahoma	2.	624	-	-	-	-	12.	3,743
Texas	t	+	-	-	-	-	-	-
S. Central	-	1,282	-	-	-	-	-	4,520
Montana	0	0	0.1	9	0.1	9	0.5	45
Idaho	-	-	-	-	-	-	t	+
Wyoming	-	-	-	-	-	-	1.	31
Colorado	-	-	-	-	-	-	-	-
N. M.	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-
Washington	0.9	63	1.6	112	-	-	4.1	287
Oregon	0.8	56	2.	140	-	-	4.	280
Calif.	-	-	-	-	-	-	-	-
Far Western	-	119	-	261	-	9	-	643
U. S.	11.9	138,142	0.2	2,045	2.5	28,471	24.2	278,500

^{a/} Fusarium, except Iowa: Pythium 12 percent, 40,772,000 bu.; Fusarium 0.5 percent, 1,699,000 bu.

FIELD CORN

Table 5. Estimated reduction in yield due to smut (*Ustilago zeae*), foot rots (various organisms), stalk and ear rot (*Diplodia zeae*).

State	Production 1,000 Bushels	Estimated reduction in yield due to diseases					
		Smut		Foot rots		Diplodia	
		%	1,000 Bushels	%	1,000 Bushels	%	1,000 Bushels
*Maine	440	-	-	-	-	-	-
*New Hampshire	656	-	-	-	-	-	-
*Vermont	3,120	-	-	-	-	-	-
Massachusetts	1,482	2.	31	0.7	11	0.2	3
*Rhode Island	400	-	-	-	-	-	-
Connecticut	1,764	1.	18	-	-	-	-
New York	25,345	1.	256	-	-	-	-
*New Jersey	7,486	-	-	-	-	-	-
Pennsylvania	59,508	4.	2,675	2.	1,337	t	+
N. Atlantic	100,201	3.1	2,980	-	1,348	-	3
Ohio	156,992	0.5	863	2.	3,450	1.	1,725
Indiana	173,389	0.2	351	0.2	351	0.7	1,230
Illinois	379,350	1.5	7,597	-	-	12.	60,777
Michigan	58,035	1.	592	t	+	0.1	59
Wisconsin	90,514	2.	2,057	t	+	1.	1,029
Minnesota	157,535	4.	6,704	1.	1,676	-	-
Iowa	468,923	6.	37,020	12.	74,040	1.	6,170
*Missouri	106,500	-	-	-	-	-	-
North Dakota	16,186	2.	344	-	-	-	-
*South Dakota	35,688	-	-	-	-	-	-
*Nebraska	107,735	-	-	-	-	-	-
Kansas	45,200	2.	937	1.5	703	-	-
N. Central	1,796,047	3.	56,465	4.3	80,220	2.5	7,990
*Delaware	4,147	-	-	-	-	-	-
Maryland	18,537	1.5	306	4.	815	0.5	102
Virginia	34,775	1.	382	4.	1,529	1.	382
*West Virginia	12,640	-	-	-	-	-	-
North Carolina	46,398	2.	1,160	5.	2,900	2.	1,160
*South Carolina	26,767	-	-	-	-	-	-
Georgia	53,164	3.	2,127	1.	709	5.	3,544
*Florida	8,452	-	-	-	-	-	-
S. Atlantic	204,880	2.1	3,975	3.2	5,953	2.8	5,188
Kentucky	74,547	-	-	-	-	-	-
Tennessee	68,570	t	+	-	-	-	-
*Alabama	49,700	-	-	-	-	-	-
*Mississippi	48,544	-	-	-	-	-	-
*Arkansas	36,218	-	-	-	-	-	-
Louisiana	26,730	t	+	9.	2,881	1.5	480
Oklahoma	35,080	3.	1,156	3.	1,156	1.	385
Texas	75,648	t	+	-	-	-	-
S. Central	415,037	0.4	1,156	-	4,037	-	865
Montana	2,340	2.	48	-	-	-	-
Idaho	1,184	t	+	-	-	-	-
Wyoming	2,880	3.	89	-	-	-	-
Colorado	11,319	8.	1,191	16.	2,383	-	-
*New Mexico	2,606	-	-	-	-	-	-
*Arizona	495	-	-	-	-	-	-
*Utah	500	-	-	-	-	-	-
*Nevada	62	-	-	-	-	-	-
Washington	1,015	t	+	0.2	2	-	-
Oregon	1,595	t	+	0.3	5	-	-
*California	2,077	-	-	-	-	-	-
Far Western	26,073	5.5	1,328	9.9	2,390	-	-
United States	2,542,238	2.7	65,904	3.8	93,948	3.1	77,046

*Omitted in calculations for United States and section percentage loss.

Percentage of total listed production represented in reporting area, 98.2.

FIELD CORN (Continued)

Table 5 (Cont'd). Ear rots and stalk rots (various organisms, except Diplodia), bacterial wilt (Aplanobacter stewarti), and other diseases, 1938.

State	Estimated reduction in yield due to diseases							
	Ear rots		Stalk rots		Bacterial wilt		All diseases	
	1,000		1,000		1,000		1,000	
	%	Bushels	%	Bushels	%	Bushels	%	Bushels
Maine	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-
Massachusetts	0.2	3	0.2	3	-	-	4.	62
Rhode Island	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	1.	18
New York	-	-	-	-	+	+	1.	256
New Jersey	-	-	-	-	-	-	-	-
Pennsylvania	4.	2,675	-	-	-	-	11.	7,356
N. Atlantic	-	2,678	-	3	-	-	8.	7,692
Ohio	0.5	863	-	-	5.	8,626	9.	15,527
Indiana	0.2	351	+	+	+	+	1.3	2,283
Illinois	4.1	20,765	+	+	5.	25,324	25.1	127,125
Michigan	0.3	178	0.2	118	0	0	2.	1,184
Wisconsin	4.	4,114	5.	5,143	0	0	12.	12,343
Minnesota	1.	1,676	+	+	0	0	6.	10,056
Iowa	3.	18,510	1.5	9,255	0.5	3,085	24.	148,080
Missouri	-	-	-	-	-	-	-	-
North Dakota	0.5	86	0.5	86	0	0	6.	1,033
South Dakota	-	-	-	-	0	0	-	-
Nebraska	-	-	-	-	0	0	-	-
Kansas	-	-	-	-	-	-	3.5	1,640
N. Central	2.5	46,543	0.8	14,602	2.	37,035	17.1	319,271
Delaware	-	-	-	-	-	-	-	-
Maryland	2.	467	1.	204	+	+	9.	1,834
Virginia	1.	382	+	+	+	+	9.	3,439
West Virginia	-	-	-	-	-	-	-	-
North Carolina	2.	1,160	2.	1,160	-	-	20.	11,600
South Carolina	-	-	-	-	-	-	-	-
Georgia	10.	7,089	5.	3,544	-	-	25.	17,722
Florida	-	-	-	-	-	-	-	-
S. Atlantic	4.8	9,038	2.6	4,908	-	-	18.5	34,595
Kentucky	1.	793	-	-	5.	3,965	6.	4,758
Tennessee	3.	2,121	+	+	-	-	3.	2,121
Alabama	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-
Arkansas	-	-	-	-	-	-	-	-
Louisiana	6.	1,921	-	-	-	-	16.5	5,282
Oklahoma	1.	385	1.	385	-	-	9.	3,467
Texas	-	-	-	-	-	-	+	+
S. Central	1.8	5,220	-	385	-	3,965	5.3	15,628
Montana	-	-	-	-	0	0	2.	48
Idaho	+	+	-	-	0	0	+	+
Wyoming	-	-	-	-	0	0	3.	89
Colorado	-	-	-	-	0	0	24.	3,574
New Mexico	-	-	-	-	0	0	-	-
Arizona	-	-	-	-	0	0	-	-
Utah	-	-	-	-	0	0	-	-
Nevada	-	-	-	-	0	0	-	-
Washington	-	-	-	-	0	0	0.2	2
Oregon	-	-	-	-	0	0	0.8	13
California	-	-	-	-	-	-	-	-
Far Western	-	-	-	-	0	0	15.4	3,726
United States	2.6	63,479	0.8	19,898	1.7	41,000	15.5	380,912

SWEET CORN

Table 6. Estimated reduction in yield due to smut (Ustilago zeae), bacterial wilt (Aplanobacter stewarti), stalk and ear rots (Diplodia spp.), foot rots and seedling blights (Fusarium spp. and others), and other diseases, 1938.

State	Estimated reduction in yield due to diseases											
	Pro-	duction:										
	Short	Smut		Wilt		Diplodia		Foot rots		All Diseases		
	tons	%	tons	%	tons	%	tons	%	tons	%	tons	
*Maine	59,800	t	+	0	0	-	-	-	-	-	-	
*New Hampshire	1,800	-	-	0	0	-	-	-	-	-	-	
*Vermont	4,000	-	-	0	0	-	-	-	-	-	-	
Mass.		3.	+	t	+	-	-	5.	+	9.	+	
Conn.		1.	+	1.	+	-	-	-	-	2.	+	
New York	66,000	3.	2,058	0.3	206	0.2	137	0.2	137	3.8	2,607	
Pennsylvania	19,300	5.	1,084	3.	651	-	-	3.	651	11.	2,386	
Ohio	45,800	0.5	236	2.5	1,182	0.1	47	-	-	3.1	1,465	
Indiana	72,100	0.1	74	2.	1,473	t	+	-	-	2.1	1,547	
*Illinois	146,400	-	-	-	-	-	-	-	-	-	-	
Michigan	7,800	1.	79	0	0	0.1	8	0.1	8	1.5	119	
Wisconsin	57,600	6.	3,677	0	0	t	+	t	+	6.	3,677	
Minnesota	170,800	4.	7,268	0	0	1.	1,817	1.	1,817	6.	10,902	
Iowa	82,500	8.	8,462	1.	1,058	3.	3,173	-	-	22.	23,270	
N. D.		3.	+	0	0	-	-	-	-	3.	+	
*Nebraska	4,000	-	-	-	-	-	-	-	-	-	-	
*Delaware	6,000	-	-	-	-	-	-	-	-	-	-	
Maryland	85,000	2.	1,809	1.	904	2.	1,809	1.	904	6.	5,426	
*Tennessee	8,800	-	-	-	-	-	-	-	-	-	-	
Oklahoma		10.	+	-	-	t	+	t	+	10.	+	
Texas		t	+	t	+	-	-	-	-	t	+	
Montana		2.	+	-	-	-	-	-	-	2.	+	
Wyoming		4.	+	0	0	-	-	-	-	4.	+	
Colorado		10.	+	0	0	-	-	15.	+	25.	+	
Washington	7,000	t	+	0	0	-	-	t	+	t	+	
Oregon	5,400	t	+	0	0	-	-	0.1	5	0.1	5	
Other States	25,900											
U. S.	876,000	3.7	24,747	0.8	5,474	1.0	6,991	0.5	3,522	7.6	51,404	

*Omitted in calculations for United States percentage loss.

Approximate percentage of total crop in reporting area, 71.

SWEETPOTATO

Table 7. Estimated reduction in yield due to stem rot (*Fusarium bulbigenum* batatas and *F. oxysporum* f. 2), black rot (*Ceratostomella fimbriata*), scurf (*Monilochaetes infuscanis*), mottle necrosis (*Pythium ultimum*), soil rot (*Actinomyces* sp.), and other diseases, and estimated loss from storage rots, including soft rot (*Rhizopus* spp.), surface rot (*Fusarium oxysporum*), and others, 1938.

: Pro- :		Estimated reduction in yield due to diseases											
: duc- :		: Stem rot :			: Scurf :			: Mottle :			: All :		
: tion :		: Black rot :			: Scurf :			: necrosis :			: Soil rot :		
: State :		: 1000 :			: 1000 :			: 1000 :			: 1000 :		
: bush- :		: bush- :			: bush- :			: bush- :			: bush- :		
: els :		: % :			: % :			: % :			: % :		
: *N.J. :		: 1,470 :			: 1,470 :			: 1,470 :			: 1,470 :		
: Pa. :		: 0.5 :			: 0.5 :			: 0.5 :			: 0.5 :		
: Ind. :		: 345 :			: 345 :			: 345 :			: 345 :		
: *Ill. :		: 648 :			: 648 :			: 648 :			: 648 :		
: Iowa :		: 300:20 :			: 300:20 :			: 300:20 :			: 300:20 :		
: *Mo. :		: 1,020 :			: 1,020 :			: 1,020 :			: 1,020 :		
: Kans. :		: 375 :			: 375 :			: 375 :			: 375 :		
: *DeLa. :		: 500 :			: 500 :			: 500 :			: 500 :		
: Md. :		: 1,040 :			: 1,040 :			: 1,040 :			: 1,040 :		
: Va. :		: 3,570 :			: 3,570 :			: 3,570 :			: 3,570 :		
: N.C. :		: 8,748:10 :			: 8,748:10 :			: 8,748:10 :			: 8,748:10 :		
: *S.C. :		: 6,468 :			: 6,468 :			: 6,468 :			: 6,468 :		
: Ga. :		: 9,225:10 :			: 9,225:10 :			: 9,225:10 :			: 9,225:10 :		
: *Fla. :		: 1,400 :			: 1,400 :			: 1,400 :			: 1,400 :		
: *Ky. :		: 2,280 :			: 2,280 :			: 2,280 :			: 2,280 :		
: Tenn. :		: 5,459 :			: 5,459 :			: 5,459 :			: 5,459 :		
: *Ala. :		: 8,560 :			: 8,560 :			: 8,560 :			: 8,560 :		
: *Miss. :		: 7,743 :			: 7,743 :			: 7,743 :			: 7,743 :		
: *Ark. :		: 3,225 :			: 3,225 :			: 3,225 :			: 3,225 :		
: La. :		: 6,930 :			: 6,930 :			: 6,930 :			: 6,930 :		
: Okla. :		: 1,470 :			: 1,470 :			: 1,470 :			: 1,470 :		
: *Tex. :		: 4,350 :			: 4,350 :			: 4,350 :			: 4,350 :		
: *Calif. :		: 1,521 :			: 1,521 :			: 1,521 :			: 1,521 :		
: U.S. :		: 76,647 :			: 76,647 :			: 76,647 :			: 76,647 :		

* Omitted from calculations for U. S. percentage loss, for field loss; ° for storage rots.

Percentage of total listed production in 10 States reporting, 49.

State	Production : 1,000 : bushels	Estimated reduction in yield due to diseases											
		Virus diseases						Late blight : Rhizoctonia : Blackleg					
		Mosaic	Leaf roll	Others									
		: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %	: 1,000 : : bushels : %
Georgia	1,044	3. : 40 : 3. :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :
Florida	4,488	3. : 157 : 3. :	2. : 105 : 2. :	- : - : - :	- : - : - :	- : - : - :	2.5 : 131 : 2. :	- : - : - :	131 : 105 : 2. :	2. : 105 : 0.3 :	- : - : - :	5. : 105 : 0.3 :	66 16
S. Atlantic	33,433	2.3 : 945 : 2.3 :	3.9 : 1,621 : 3.9 :	1.4 : 602 : 1.4 :	- : - : - :	- : - : - :	10.8 : 4,537 : 10.8 :	1. : 415 : 1. :	4,537 : 415 : 1. :	1. : 415 : 1.2 :	- : - : - :	1.2 : 415 : 1.2 :	500
*Kentucky	4,635	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
Tennessee	3,120	- : - : - :	- : - : - :	5. : 178 : 5. :	- : - : - :	- : - : - :	5. : 178 : 5. :	- : - : - :	178 : 178 : 5. :	- : - : - :	- : - : - :	- : - : - :	+
*Alabama	4,326	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
*Mississippi	1,368	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
*Arkansas	3,400	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
Louisiana	2,752	5. : 167 : 5. :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
Oklahoma	2,376	3. : 89 : 3. :	3. : 89 : 3. :	- : - : - :	- : - : - :	- : - : - :	0 : 89 : 0 :	1. : 30 : 1. :	0 : 30 : 1. :	1. : 30 : 1. :	- : - : - :	1. : 30 : 1. :	30
*Texas	2,950	t : + : t :	t : + : t :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
S. Central	24,927	2.6 : 256 : 2.6 :	0.9 : 89 : 0.9 :	2.7 : 267 : 2.7 :	- : - : - :	- : - : - :	1.8 : 178 : 1.8 :	0.3 : 30 : 0.3 :	178 : 30 : 0.3 :	0.3 : 30 : 0.3 :	- : - : - :	0.3 : 30 : 0.3 :	30
Montana	1,620	5. : 121 : 5. :	0 : 0 : 0 :	1. : 24 : 1. :	- : - : - :	- : - : - :	0 : 24 : 0 :	- : - : - :	0 : 24 : 0 :	- : - : - :	- : - : - :	- : - : - :	+
Idaho	28,750	4. : 1,223 : 4. :	t : + : t :	t : + : t :	- : - : - :	- : - : - :	0 : + : 0 :	1. : 306 : 1. :	0 : 306 : 1. :	1. : 306 : 1. :	- : - : - :	1. : 306 : 1. :	306
Wyoming	1,080	2. : 56 : 2. :	- : - : - :	1. : 28 : 1. :	- : - : - :	- : - : - :	0 : 28 : 0 :	1.5 : 42 : 1.5 :	0 : 42 : 1.5 :	1.5 : 42 : 1.5 :	- : - : - :	1.5 : 42 : 1.5 :	28
Colorado	11,830	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	0 : - : 0 :	- : - : - :	0 : - : 0 :	- : - : - :	- : - : - :	2. : - : 2. :	376
*New Mexico	560	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	0 : - : 0 :	- : - : - :	0 : - : 0 :	- : - : - :	- : - : - :	- : - : - :	-
*Arizona	275	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	0 : - : 0 :	- : - : - :	0 : - : 0 :	- : - : - :	- : - : - :	- : - : - :	-
*Utah	2,244	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	0 : - : 0 :	- : - : - :	0 : - : 0 :	- : - : - :	- : - : - :	- : - : - :	-
*Nevada	336	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	0 : - : 0 :	- : - : - :	0 : - : 0 :	- : - : - :	- : - : - :	- : - : - :	-
Washington	7,568	- : - : - :	- : - : - :	10. : 880 : 10. :	- : - : - :	- : - : - :	0.2 : 18 : 0.2 :	1. : 88 : 1. :	18 : 88 : 1. :	1. : 88 : 1. :	- : - : - :	0.2 : 88 : 0.2 :	18
*Oregon	7,310	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
*California	18,720	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	- : - : - :	-
Far Western	80,293	2.2 : 1,400 : 2.2 :	- : - : - :	1.5 : 932 : 1.5 :	- : - : - :	- : - : - :	t : 18 : t :	0.7 : 436 : 0.7 :	18 : 436 : 0.7 :	0.7 : 436 : 0.7 :	- : - : - :	1.1 : 436 : 1.1 :	728
United States	369,297	1.5 : 6,379 : 1.5 :	2.0 : 8,358 : 2.0 :	1.6 : 6,823 : 1.6 :	- : - : - :	- : - : - :	12.8 : 54,573 : 12.8 :	1.8 : 7,529 : 1.8 :	54,573 : 7,529 : 1.8 :	1.8 : 7,529 : 1.8 :	- : - : - :	0.8 : 7,529 : 0.8 :	3,250

*Omitted from calculations for United States and section percentage loss.
Percentage of total listed production in States reporting, 80.

(continued, next page).

POTATO (continued)

Table 8 (cont'd). Estimated reduction in yield from fusarium wilt (*Fusarium* spp.), tipburn and hopperburn (non-parasitic and leafhoppers), early blight (*Alternaria solani*), bacterial ring rot (*Bacterium sepedonicum*), scab (*Actinomyces scabies*), psyllid yellows (due to psyllids), and other diseases, 1938.

Estimated reduction in yield due to diseases												
State	Fusarium wilt	Tipburn	hopperburn	Early blight	Ring rot	Scab	Psyllid yellows	All diseases				
	: 1,000 bushels	: 1,000 bushels	: 1,000 bushels	: 1,000 bushels	: 1,000 bushels	: 1,000 bushels	: 1,000 bushels	: 1,000 bushels				
	%	%	%	%	%	%	%	%				
Maine	-	-	-	-	t	1	471	0	0	16	7,542	
N. H.	-	-	-	-	-	-	-	0	0	-	-	
Vermont	-	10	491:2	98	-	2	98	0	0	61.6	3,022	
Mass.	-	3	87:1	29	-	0.2	6	0	0	30	874	
Rhode Island	-	-	-	-	-	-	-	0	0	-	-	
Connecticut	-	-	-	-	-	-	-	0	0	15	408	
New York	t	6	4,473:2	1,491	-	2	1,491	0	0	64	47,715	
New Jersey	-	-	-	-	-	-	-	0	0	-	-	
Pennsylvania	t	1	315:1	315	t	5	1,576	0	0	30.2	9,518	
N. Atlantic	t	3.3	5,366:1.2	1,933	t	2.2	3,642	0	0	42.1	69,079	
Ohio	1	164	1,145:2	327	-	1	164	0	0	22.8	3,729	
Indiana	-	-	169:0.1	6	-	5	281	0	0	12.1	681	
Illinois	-	-	-	-	-	-	-	0	0	-	-	
Michigan	0.5	200	1,997:2	799	-	10	3,995	0	0	24.9	9,947	
Wisconsin	t	+	477:t	+	t	5	1,193	0	0	20	4,772	
Minnesota	4	1,236:10	3,090:1	309	t	1	309	0	0	33	10,197	
Iowa	0.1	8	503:0.1	8	-	4	335	0	0	32.2	2,699	
Missouri	-	-	-	-	-	-	-	0	0	-	-	
North Dakota	1	105	52:t	+	-	t	+	+	+	7	734	
South Dakota	-	-	-	-	-	-	-	-	-	-	-	
Nebraska	6	427	-	-	t	6	427	-	-	12.4	882	
Kansas	-	-	-	-	-	-	-	-	-	11.5	417	
N. Central	1.5	2,140:5.1	7,433:1	1,449	t	4.6	6,704	-	-	23.3	34,058	
Delaware	-	-	-	-	-	-	-	0	0	-	-	
Maryland	0.5	19	19:0.5	19	-	2	75	0	0	20	748	
Virginia	-	-	-	164	-	2	329	0	0	37	6,077	
West Virginia	-	-	209:1	42	-	1	42	0	0	35	1,466	
N. C.	1	109	109:0.5	55	-	1	109	0	0	20.5	2,240	
S. C.	-	-	-	-	-	-	-	0	0	-	-	

TOMATOES: FOR MARKET

Table 9. Estimated reduction in yield due to septoria blight (*Septoria lycopersici*), fusarium wilt (*Fusarium bulbigenum lycopersici*), bacterial wilt (*Bacterium solanacearum*), early blight and nailhead spot (*Alternaria* spp.), root knot (*Heterodera marioni*).

State	Pro- duction 1,000 bushels	Estimated reduction in yield due to diseases									
		Septoria blight		Fusarium wilt		Bacterial wilt		Early blight		Root knot	
		1,000:		1,000:		1,000:		1,000:		1,000:	
		%	bu.	%	bu.	%	bu.	%	bu.	%	bu.
Mass.		1.	+	-	-	0.1	+	10.	+	0	0
Connecticut		-	-	-	-	-	-	10.	+	0	0
New York	1,955	1.5	35	0	0	0	0	12.	280	0.1	2
*New Jersey	1,800	-	-	-	-	-	-	-	-	-	-
Pennsylvania	400	3.	14	0.1	+	-	-	7.	32	0.1	+
N. Atlantic	4,155	1.8	49	t	+	-	-	11.2	312	0.1	2
Ohio	369	10.	47	2.	9	-	-	5.	23	0.5	2
Indiana	540	5.	30	0.5	3	0.1	1	3.	18	-	-
*Illinois	113	-	-	-	-	-	-	-	-	-	-
Michigan	500	1.	5	5.	27	-	-	0.1	1	0.1	1
Wisconsin		10.	+	t	+	-	-	10.	+	-	-
Minnesota		t	+	t	+	-	-	-	-	-	-
Iowa	72	4.	3	t	+	-	-	1.	1	-	-
*Missouri	495	-	-	-	-	-	-	-	-	-	-
North Dakota		-	-	-	-	-	-	-	-	-	-
Kansas		5.	+	1.	+	-	-	-	-	-	-
N. Central	2,089	5.	85	2.3	39	0.1	1	2.6	43	0.2	3
*Delaware	18	-	-	-	-	-	-	-	-	-	-
Maryland	659	1.	7	1.5	11	-	-	5.	37	-	-
Virginia	288	1.	4	10.	37	2.	7	4.	15	t	+
W. Va.		-	-	2.	+	-	-	-	-	-	-
N. C.	130	1.	2	4.	7	6.	10	0.5	1	5.	8
*S. C.	360	-	-	-	-	-	-	-	-	-	-
Georgia	350	-	-	5.	26	1.	5	10.	52	2.	10
Florida	4,953	t	+	2.	108	2.	108	2.	108	-	-
S. Atlantic	6,758	0.2	13	2.6	189	1.8	130	3.	213	0.3	18
*Kentucky	196	-	-	-	-	-	-	-	-	-	-
Tennessee	819	50.	1,024	2.	41	-	-	5.	102	2.	41
*Mississippi	1,200	-	-	-	-	-	-	-	-	-	-
*Arkansas	298	-	-	-	-	-	-	-	-	-	-
Louisiana	239	-	-	1.	2	-	-	1.	2	-	-
Oklahoma		-	-	2.	+	2.	+	2.	+	5.	+
Texas	3,333	-	-	2.	69	-	-	t	+	t	+
S. Central	6,085	-	1,024	2.	112	-	-	1.8	104	0.7	41
Montana		0.2	+	3.	+	-	-	-	-	-	-
Idaho		-	-	-	-	-	-	-	-	-	-
Colorado	396	t	+	t	+	-	-	-	-	-	-
Utah	52	-	-	-	-	-	-	-	-	-	-
Washington	176	-	-	-	-	-	-	0.3	1	-	-
*Oregon	285	-	-	-	-	-	-	-	-	-	-
*California	4,316	-	-	-	-	-	-	-	-	-	-
Far Western	5,225	t	+	-	-	-	-	-	1	-	-
U. S.	24,312	6.5	1,171	1.9	340	0.7	131	3.7	673	0.4	64

* Omitted from calculations for United States and section percentage loss.
Percentage of total listed production in reporting area, 63.

TOMATOES: FOR MARKET (continued)

Table 9 (cont'd). Estimated reduction in yield due to blossom-end rot (non-parasitic), bacterial canker (*Aplanobacter michiganense*), mosaic, curly top, other virus diseases, and other diseases, 1938.

State	Estimated reduction in yield due to diseases									
	Blossom-end rot		Bacterial canker		Mosaic		Curly top		Others	
	:1000:		:1000:		:1000:		:1000:		:1000:	
	%		%		%		%		%	
	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.
Massachusetts	2.	+	0.1	+	1.	+	0	0	1.	+
Connecticut	-	-	-	-	-	-	0	0	-	-
New York	1.	23	0.2	5	1.	23	0	0	0.1	2
New Jersey	-	-	-	-	-	-	0	0	-	-
Pennsylvania	1.	5	t	+	1.	5	0	0	t	+
N. Atlantic	1.	28	0.2	5	1.	28	0	0	0.1	2
Ohio	1.	5	0.1	+	2.	9	0	0	t	+
Indiana	-	-	-	-	-	-	0	0	-	-
Illinois	-	-	-	-	-	-	0	0	-	-
Michigan	0.1	1	0.1	1	0.1	1	0	0	t	+
Wisconsin	t	+	1.	+	t	+	0	0	-	-
Minnesota	-	-	-	-	-	-	0	0	t	+
Iowa	6.	5	t	+	2.	2	0	0	-	-
Missouri	-	-	-	-	-	-	0	0	-	-
North Dakota	1.	+	-	-	1.	+	0	0	-	-
Kansas	-	-	-	-	-	-	0	0	-	-
N. Central	0.7	11	0.1	1	0.7	12	0	0	t	+
Delaware	-	-	-	-	-	-	0	0	-	-
Maryland	-	-	0.5	4	-	-	0	0	1.	7
Virginia	-	-	-	-	2.	7	0	0	-	-
West Virginia	3.	+	-	-	-	-	0	0	-	-
N. C.	2.	3	-	-	1.	2	0	0	-	-
S. C.	-	-	-	-	-	-	0	0	-	-
Georgia	15.	78	-	-	-	-	0	0	-	-
Florida	2.	108	-	-	t	+	0	0	-	-
S. Atlantic	2.6	189	t	4	0.1	9	0	0	0.1	7
Kentucky	-	-	-	-	-	-	0	0	-	-
Tennessee	-	-	-	-	-	-	0	0	1.	20
Mississippi	-	-	-	-	-	-	0	0	-	-
Arkansas	-	-	-	-	-	-	0	0	-	-
Louisiana	t	+	-	-	2.	5	0	0	-	-
Oklahoma	1.	+	1.	+	1.	+	0	0	-	-
Texas	t	+	-	-	t	+	t	+	t	+
S. Central	1.	-	-	-	t	5	t	+	0.4	20
Montana	1.	+	-	-	0.2	+	0.2	+	-	-
Idaho	t	+	-	-	t	+	15.	+	-	-
Colorado	-	-	10.	44	-	-	-	-	-	-
Utah	-	-	5.	3	-	-	5.	3	-	-
Washington	0.3	1	0.3	1	0.3	1	25.	61	-	-
Oregon	-	-	-	-	-	-	-	-	-	-
California	-	-	-	-	-	-	-	-	-	-
Far Western	0.1	1	6.4	48	0.1	1	8.5	64	-	-
United States	1.3	229	0.3	58	0.3	55	0.3	64	0.1	29

a/Verticillium wilt (*V. albo-atrum*), 10 percent, 7000 bushels.

TOMATOES: FOR MANUFACTURE

Table 10. Estimated reduction in yield from septoria blight (Septoria lycopersici), fusarium wilt (Fusarium bulbigenum lycopersici), early blight (Alternaria solani), blossom-end rot (non-parasitic), bacterial canker (Aplanobacter michiganense), virus diseases, and other diseases, 1938.

State	Production : short tons	Estimated reduction in yield due to diseases															
		Septoria				Fusarium				Early blight				Blossom-end rot			
		Short : tons	%	Short : tons	%	Short : tons	%	Short : tons	%	Short : tons	%	Short : tons	%	Short : tons	%	Short : tons	%
New York:	170,200:	1.5:	3,043:	0:	0:	12:	24,343:	1:	2,029:	0.2:	406:	1.1:	2,231:	16.1:	32,661		
*N. J.	139,000:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
Pa.	83,700:	3:	2,893:	0.1:	96:	7:	6,750:	1:	964:	t:	+	1:	964:	13.2:	12,728		
N. Atl.	493,998:	2:	5,936:	t:	96:	10.4:	31,093:	1:	2,993:	0.1:	406:	1.1:	3,195:	15.2:	45,389		
Ohio	146,900:	10:	18,619:	2:	3,724:	5:	9,309:	1:	1,862:	0.1:	186:	2:	3,724:	21.1:	39,286		
Indiana	304,900:	5:	16,698:	0.5:	1,670:	3:	10,019:	-:	-:	-:	-:	-:	-:	-:	8.7:	29,055	
*Illinois:	38,700:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
Michigan:	36,000:	1:	390:	5:	1,948:	0.1:	39:	0.1:	39:	0.1:	39:	1.1:	429:	7.6:	2,962		
Iowa	23,900:	4:	1,099:	t:	+	1:	275:	6:	1,648:	t:	+	2:	549:	13:	3,571		
*Missouri:	32,400:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
N. Cent.	582,800:	6.3:	36,806:	1.3:	7,342:	3.3:	19,642:	0.6:	3,549:	t:	225:	0.8:	4,702:	12.7:	74,874		
*Delaware:	33,300:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
Maryland:	173,600:	1:	1,940:	1.5:	2,909:	5:	9,698:	-:	-:	0.5:	970:	1:	1,940:	10.5:	20,366		
Virginia:	64,800:	1:	820:	10:	8,203:	4:	3,281:	-:	-:	0:	0:	2:	1,641:	21:	17,226		
S. Atl.	271,700:	1:	2,760:	4:	11,112:	4:	7,12,979:	-:	-:	0.4:	970:	1.3:	3,581:	13.6:	37,592		
*Kentucky:	11,500:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
Tenn.	23,200:	50:	29,000:	2:	1,160:	5:	2,900:	-:	-:	-:	-:	1:	580:	60:	34,800		
*Arkansas:	42,500:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
S. Cent.	77,200:	-:	29,000:	-:	1,160:	-:	2,900:	-:	-:	-:	-:	-:	580:	-:	34,800		
Colorado:	11,900:	t:	+	t:	+	-:	-:	-:	10:	1,322:	-:	-:	-:	10:	1,322		
Utah	54,100:	-:	-:	-:	-:	-:	-:	-:	-:	-:	5:	3,381:	5. a/	3,381:	20. b/	13,525	
*Calif.	263,300:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
Far West:	329,300:	t:	+	t:	+	-:	-:	-:	5.8:	4,703:	4.2:	3,381:	18.4:	14,847			
*Others	70,300:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:	-:
U. S.	1,724,200:	5.7:	74,502:	1.5:	19,710:	5.1:	66,614:	0.5:	6,542:	0.5:	6,304:	1.2:	15,439:	15.9:	207,502		

* Short tons, 2000 pounds. * Omitted in calculations for section and U. S. percentage loss.

a/ Curly top. b/ Verticillium wilt (Verticillium albo-atrum), 10 percent, 6,763 short tons.

! Percentage of total listed production in reporting area, 63.

GREEN BEANS

Table 11. Estimated reduction in yield from bacterial blights (Bacterium phaseoli and B. medicaginis phaseolicola), virus diseases, root and stem rots (Fusarium, Rhizoctonia, etc.), rust (Uromyces phaseoli typica), powdery mildew (Erysiphe polygoni), and other diseases, 1938.

State	Estimated reduction in yield due to diseases														
	Pro-	duc-													
	tion	Common : Halo : diseases : rots : Rust : Powdery : All													
	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	bu.	%	bu.	%	bu.	%	bu.	%	bu.	%	bu.	%	bu.	%	bu.
Maine	333	-	-	t	+	-	-	-	-	-	-	-	-	t	+
Mass.		2.	+	1.	+	0.2	+	-	-	0.1	+	-	-	6.2	+
N. Y.	1,811	1.	20	5.	102	2.	41	2.2	45	0.2	4	0.1	2	11.1	226
*N. J.	1,081	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	743	0.5	4	1.	8	2.	16	2.	16	0.2	2	t	+	6.7	54
Ohio		5.	+			1.	+	1.	+	-	-	-	-	9.	+
*Indiana	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	108	10.	12	-	-	-	-	-	-	-	-	-	-	10.	12
*Michigan	699	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wis.	813	1.	8	1.	8	1.	8	t	+	t	+	0	0	3.	24
Iowa		4.	+			1.	+	0.1	+	-	-	-	-	8.1	+
*Delaware	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	1,580	8.	141			0.5	9	2.	35	t	+	t	+	10.5	185
Virginia	775	1.	12	15.	186	0	0	4.	50	10.	124	7.	87	37.5	465
N. C.	665	1.	7	1.	7	2.	15	2.	15	2.	15	2.	15	11.	81
*S. C.	404	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*Georgia	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	5,381	3.	188	5.	313	-	-	2.	125	2.	125	1.	63	14	877
Tenn.	287	-	-	-	-	t	+	-	-	1.	3	t	+	1.5	4
*Alabama	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*Miss.	412	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*Ark.	383	-	-	-	-	-	-	-	-	-	-	-	-	-	-
La.	864	10.	96			-	-	t	+	t	+	-	-	10.	96
Texas	370	-	-	-	-	t	+	-	-	t	+	t	+	t	+
Idaho		t	+	t	+	11.	+	t	+	-	-	-	-	11.	+
Wyoming		3.	+	30.	+	3.	+	-	-	t	+	-	-	36.	+
Colorado	606	6.	39			1.	7	-	-	-	-	-	-	7.	46
*Utah	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wash.	327	0.3	1	0.3	1	6.	21	-	-	0.4	1	-	-	7.	24
*Oregon	913	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*Calif.	2,150	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*Other															
States	793														
U. S.	22,289	3.2	528	3.7	625	0.7	117	1.7	286	1.6	274	1.0	167	12.5	2,094

a/ All mosaic, except in Idaho, 6 percent, and in Washington, 5 percent, from curly top.

* Omitted in calculations for U. S. percentage loss.

Approximate percentage of total crop in reporting area, 66.

° Bushels of 30 pounds. Production of beans for manufacture given in short tons reduced to thousands of bushels.

DRY BEANS

Table 12. Estimated reduction in yield due to bacterial blights (*Bacterium phaseoli* and *B. medicaginis phaseolicola*), virus diseases, root and stem rots (*Fusarium*, *Rhizoctonia*, etc.) and other diseases, 1938.

State	Production** : 1,000 : : bags° :	Estimated reduction in yield due to diseases									
		Bacterial blights				Virus		Root rots		All	
		Common		Halo		diseases ^{a/}				diseases	
		: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags	: 1,000 : : % : bags
Maine	101	-	-	-	-	-	-	-	-	+	+
*Vt.	19	-	-	-	-	-	-	-	-	-	-
N. Y.	1,449	1.	16.	5.	80.	0.5.	8.	2.2.	35.	4.3.	149
Mich.	4,567	2.	96.	1.	48.	0.1.	5.	0.2.	10.	4.5.	216
Wis.	8	1.	+	1.	+	1.	+	+	+	3.	+
*Minn.	14	-	-	-	-	-	-	-	-	-	-
Nebr.	190	9.	55.	60.	368.	-	-	-	-	69.	423
Okla.	3	3.	+	-	-	+	+	-	-	4.	+
Mont.	216	2.	5.	5.	12.	2.	5.	1.	2.	10.	24
Idaho	1,566	t	+	t	+	4.	65.	t	+	4.	65
Wyo.	470	3.	22.	30.	220.	3.	22.	-	-	36.	264
Colo.	1,498	6.	97.	-	-	1.	16.	-	-	7.	113
*N. M.	531	-	-	-	-	-	-	-	-	-	-
*Ariz.	64	-	-	-	-	-	-	-	-	-	-
*Oregon	12	-	-	-	-	-	-	-	-	-	-
*Calif.	4,563	-	-	-	-	-	-	-	-	-	-
U. S.	15,268	2.6:	291:	6.4:	728:	1.1:	121:	0.4:	47:	11.1:	1,254

° Bags of 100 pounds.

^{a/} All mosaic, except Montana with 2 percent from mosaic, trace from curly top; and Idaho, mosaic and curly top, each 2 percent.

* Omitted from calculations for U. S. percentage loss.

Percentage of total listed production in States reporting, 66.

** Includes beans grown for seed.

GREEN PEAS: FOR MANUFACTURE

Table 13. Estimated reduction in yield due to wilt and near wilt (*Fusarium* spp.), ascochyta blights (*Mycosphaerella pinodes* and *Ascochyta* spp.), root and stem rots caused by various organisms, virus diseases, and other diseases, 1938.

State:	Production short tons	Estimated reduction in yield due to diseases									
		Wilt and near wilt		Ascochyta blights		Root and stem rots		Virus diseases		All diseases	
		:Short		:Short		:Short		:Short		:Short	
		%	tons	%	tons	%	tons	%	tons	%	tons
*Maine:	2,860:	-	-	-	-	-	-	-	-	-	-
N. Y.:	29,640:	0.5:	206:	0.3:	124:	15:	6,175:	12:	4,940:	28:	11,527
Pa.:	8,060:	0.5:	43:	t:	+	6:	517:	t:	+	6.5:	560
Ohio:	3,060:	1:	33:	1:	33:	3:	99:	-	-	7:	231
*Ind.:	6,180:	-	-	-	-	-	-	-	-	-	-
*Ill.:	11,140:	-	-	-	-	-	-	-	-	-	-
Mich.:	11,180:	0.1:	11:	0.1:	11:	0.1:	11:	0.1:	11:	0.5:	55
Wis.:	98,800:	3:	3,153:	t:	+	3:	3,153:	t:	+	6:	6,306
*Minn.:	18,630:	-	-	-	-	-	-	-	-	-	-
*Dela.:	1,400:	-	-	-	-	-	-	-	-	-	-
Md.:	17,770:	-	-	0.3:	56:	4:	744:	-	-	4.5:	837
*Va.:	4,200:	-	-	-	-	-	-	-	-	-	-
Mont.:	1,990:	-	-	t:	+	2.1:	43:	t:	+	2.1:	43
Colo.:	2,950:	-	-	-	-	10:	328:	-	-	10:	328
*Utah:	20,660:	-	-	-	-	-	-	-	-	-	-
Wash.:	25,760:	1:	271:	0.5:	136:	1:	271:	1:	271:	5:	1,356
*Ore.:	17,280:	-	-	-	-	-	-	-	-	-	-
*Other:	:	:	:	:	:	:	:	:	:	:	:
States:	16,700:	:	:	:	:	:	:	:	:	:	:
U. S.:	298,260:	1.7:	3,717:	0.2:	360:	5.1:	11,341:	2.4:	5,222:	9.7:	21,243

* Omitted from calculations for U. S. percentage loss.

Percentage of total listed production in States reporting, 67.

GREEN BEANS: FOR MARKET

Table 14. Estimated reduction in yield due to wilt and near wilt (*Fusarium* spp.), ascochyta blights (*Mycosphaerella pinodes* and *Ascochyta* spp.), root and stem rots caused by various organisms, virus diseases, and other diseases, 1938.

State:	Production 1000 bushels	Estimated reduction in yield due to diseases									
		Wilt and		Ascochyta		Root and		Virus		All	
		near wilt		blights		stem rots		diseases		diseases	
		: 1000		: 1000		: 1000		: 1000		: 1000	
		%	bu.	%	bu.	%	bu.	%	bu.	%	bu.
Mass.:		5.	+	0.2:	+	8.	+	0.2:	+	15.	+
N. Y.:	465	0.5:	3:	0.3:	2:	15.	97:	12.	78:	28.	181
*N. J.:	185	-	-	-	-	-	-	-	-	-	-
Pa.:		0.5:	+	t	+	6.	+	t	+	6.5:	+
Ohio:		1.	+	1.	+	3.	+	-	-	7.	+
Mich.:		0.1:	+	0.1:	+	0.1:	+	0.1:	+	0.5:	+
Wis.:		3.	+	t	+	3.	+	t	+	6.	+
Md.:	12	-	-	0.3:	+	4.	1:	-	-	4.5:	1
*Va.:	195	-	-	-	-	-	-	-	-	-	-
N. C.:	225	1.	2:	1.	2:	4.	10:	-	-	9.	21
*S. C.:	230	-	-	-	-	-	-	-	-	-	-
Fla.:	558	-	-	-	-	5.	30:	-	-	6.	36
Tenn.:		t	+	t	+	t	+	t	+	t	+
*Ala.:	16	-	-	-	-	-	-	-	-	-	-
*Miss.:	162	-	-	-	-	-	-	-	-	-	-
*La.:	60	-	-	-	-	-	-	-	-	-	-
Okla.:		1.	+	-	-	-	-	t	+	7.	+
*Texas:	300	-	-	-	-	-	-	-	-	-	-
Mont.:		t	+	t	+	2.1:	+	t	+	2.1:	+
Idaho:	520	-	-	-	-	t	+	t	+	t	+
Colo.:	1,020	-	-	-	-	10.	113:	-	-	10.	113
*Ariz.:	63	-	-	-	-	-	-	-	-	-	-
*Utah:	232	-	-	-	-	-	-	-	-	-	-
Wash.:	546	1.	6:	0.5:	3:	1.	6:	1.	6:	5.	30
*Ore.:	52	-	-	-	-	-	-	-	-	-	-
*Calif.:	3,440	-	-	-	-	-	-	-	-	-	-
U. S.:	8,251	0.3:	11:	0.2:	7:	6.9:	257:	2.3:	84:	10.3:	382

* Bushels of 30 pounds.

* Omitted in calculations for U. S. percentage loss.

Percentage of total listed production in States reporting, 40.

SUGAR BEET

Table 15. Estimated reduction in yield due to curly top (virus); leaf spot (*Cercospora beticola*), root rots (various organisms), damping-off (various organisms), and other diseases, 1938.

State	Production:		Estimated reduction in yield due to diseases									
	1000	Curly top	Leaf spot	Root rots	Damping-off	All diseases						
	short	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	tons	%	tons	%	tons	%	tons	%	tons	%	tons	tons
Ohio	397	0	0	8.	35	0.5	2	-	-	8.5	37	
Mich.	1,028	0	0	15.5	191	1.	12	-	-	16.7	205	
Wis.		0	0	3.	+	3.	+	1.	+	7.	+	
Iowa		0	0	10.	+	16.5	+	5.	+	32.2	+	
*Nebr.	1,081	0	0	-	-	-	-	-	-	-	-	
Texas		t	+	t	+	t	+	-	-	1.	+	
Mont.	955	6.	69	t	+	5.	58	3.	35	17.	197	
Idaho	1,019	t	+	-	-	t	+	t	+	t	+	
Wyo.	687	-	-	t	+	-	-	-	-	t	+	
Colo.	1,984	t	+	t	+	t	+	-	-	t	+	
*Utah	742	-	-	-	-	-	-	-	-	-	-	
Wash.		5.	+	-	-	0.6	+	0.4	+	6.	+	
*Calif.	1,993	-	-	-	-	-	-	-	-	-	-	
*Other:												
States:	1,406											
U. S.:	11,292	1.1	69	3.5	226	1.1	72	0.5	35	6.7	439	

* Omitted from calculations for U. S. percentage loss.

Percentage of total listed production in States reporting, 54.

COTTON

Table 16. Estimated reduction in yield due to anthracnose (*Glomerella gossypii*), angular leaf spot (*Bacterium malvacearum*), fusarium wilt (*Fusarium vasinfectum*), root knot (*Heterodera marioni*), cotton root rot (*Phymatotrichum omnivorum*), seedling blights (various organisms), deficiency diseases, and other diseases, 1938.

Estimated reduction in yield due to diseases												
State	Produce	Anthrac-	Angular	Wilt	Root knot	Root rot	Seedling	Deficiency	All			
1,000	bales	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
%	%	%	%	%	%	%	%	%	%	%	%	%
bales	bales	bales	bales	bales	bales	bales	bales	bales	bales	bales	bales	bales
*Mo.	337	-	-	-	-	0	-	-	-	-	-	-
Va.	15:15	3:2	+	-	-	0	5	1:2	+	24	-	5
N. C.	400:3	20:2	13:7	47:3	20	0	15	101:10	-	67:40	5	271
*S. C.	650	-	-	-	-	0	-	-	-	-	-	-
Georgia	857:0.1	1:2	23:5	56:2	23	0	10	113:5	-	56:24	1	272
*Florida	25	-	-	-	-	0	-	-	-	-	-	-
Tenn.	487:1	5:2	10:3	16	t	+	0	-	t	+	6	31
*Ala.	1,080	-	-	-	-	0	-	-	-	-	-	-
*Miss.	1,715	-	-	-	-	0	-	-	-	-	-	-
Ark.	1,340	t	+	5	74:1	15	t	1	15:2	29	9	133
La.	676:3	25:1	8:5	42:0.5	4	0	0	2	17:5	42:19	5	163
Okla.	570	-	5	35:1	7:1	7:3	21	3	21:5	35:18	-	126
Texas	3,125	-	t	+	t	+	7.6	0.5	17:0.7	24	8.8	301
*N. Mex.	95	-	-	-	-	-	-	-	-	-	-	-
*Ariz.	196	-	-	-	-	-	-	-	-	-	-	-
*Calif.	423	-	-	-	-	-	-	-	-	-	-	-
All	17	-	-	-	-	-	-	-	-	-	-	-
others	17	-	-	-	-	-	-	-	-	-	-	-
U. S.	12,008:0.6	54:1	89:2.8	242:0.8	69:3.2	281	3.2	285:2.9	253:14.8	1,302		

Approximate percentage of total listed production represented in reporting area, 62.

* Bales of 500 pounds.

* Omitted from calculations for U. S. percentage loss.

TOBACCO

Table 17. Estimated reduction in yield due to downy mildew (*Peronospora tabacina*), black root rot (*Thielaviopsis basicola*), mosaic (virus), bacterial leaf spots (*Bacterium tabacum* and *angulatum*), deficiency diseases, and other diseases, 1938.

Estimated reduction in yield due to diseases														
	Production	Downy mildew	Black	Black	Black	Mosaic	Bacterial	Deficiency	All					
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
State	pounds	%	pounds	%	pounds	%	pounds	%	pounds	%	pounds	%	pounds	pounds
Mass.	6,702	0.5	39	1	77	7	542	5	387	t	+	13.5	1,045	
*Conn.	16,726	-	-	-	-	-	-	-	-	-	-	-	-	-
*N. Y.	1,620	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	32,690	t	+	t	+	1	380	13	4,942	-	-	14	5,322	
Ohio	24,617	6	1,660	t	+	-	-	4	1,106	1	277	11	3,043	
*Ind.	10,350	-	-	-	-	-	-	-	-	-	-	-	-	-
Wis.	36,759	0	0	1	379	t	+	t	+	t	+	3	1,137	
*Minn.	770	0	0	-	-	-	-	-	-	-	-	-	-	-
*Mo.	7,035	-	-	-	-	-	-	-	-	-	-	-	-	-
*Kans.	525	0	0	-	-	-	-	-	-	-	-	-	-	-
Md.	29,250	12	5,014	0.5	209	6	2,507	7	2,925	1.5	627	30	12,536	
Va.	105,459	10	15,740	t	+	3	4,722	t	+	2	3,148	33	51,942	
*W. Va.	3,190	-	-	-	-	-	-	-	-	-	-	-	-	-
N. C.	519,230	1	6,970	1	6,970	3	20,909	2	13,939	3	20,909	25 ^a	177,725	
*S. C.	98,430	-	-	-	-	-	-	-	-	-	-	-	-	-
Ga.	91,820	t	+	-	-	0	-	0	-	t	+	5.8 ^b	5,653	
*Florida	19,392	-	-	-	-	-	-	-	-	-	-	-	-	-
Ky.	339,550	t	+	1	4,298	3	12,894	16	68,770	1	4,298	21	90,260	
Tenn.	111,855	t	+	2	2,745	2	2,745	14	19,214	-	-	13.5	25,390	
U. S.	1,455,970	1.8	29,423	0.9	14,678	2.7	44,699	6.7	111,283	1.7	29,259	22.5	374,053	

Approximate percentage of total crop represented in reporting area, 89.

a/ Rootknot, 8 percent; 55,756,000 pounds. b/ Rootknot, 4 percent; 3,899,000 pounds.

* Omitted in calculations for U. S. percentage loss.

PEAR

Table 18. Estimated reduction in yield due to blight (*Bacillus amylovorus*), scab (*Venturia pyrina*), leaf blight (*Fabraea maculata*), and other diseases, 1938.

State	Pro- duction: :1000 bu.:	Estimated reduction in yield due to diseases							
		Blight		Scab		Leaf blight		All diseases	
		%	:1000 bu.:	%	:1000 bu.:	%	:1000 bu.:	%	:1000 bu.:
*Maine	13	-	-	-	-	-	-	-	-
*N. H.	15	-	-	-	-	-	-	-	-
*Vermont	7	-	-	-	-	-	-	-	-
Mass.	75	0.1	1	0.1	1	0.1	1	11.	12
*R. I.	11	-	-	-	-	-	-	-	-
*Conn.	49	-	-	-	-	-	-	-	-
N. Y.	1,924	t	+	t	+	t	+	1.	19
*N. J.	57	-	-	-	-	-	-	-	-
Pa.	657	15.	117	0.5	4	t	+	15.5	121
N. Atl.	2,808	-	118	-	5	-	1	-	152
Ohio	634	6.	41	1.	7	-	-	7.	48
Ind.	366	20.	92	-	-	-	-	20.	92
Ill.	429	t	+	-	-	5.	25	5.	23
Mich.	1,360	5.	72	t	+	t	+	5.	72
Wis.		1.5	+	10.	+	t	+	11.5	+
Iowa	104	3.	3	0	0	-	-	3.	3
*Missouri	66	-	-	-	-	-	-	-	-
*Nebraska	54	-	-	-	-	-	-	-	-
*Kansas	58	-	-	-	-	-	-	-	-
N. Cent.	3,071	6.6	208	0.2	7	0.7	23	7.6	238
*Delaware	7	-	-	-	-	-	-	-	-
Maryland	82	10.	10	2.5	2	3.	3	15.5	15
Virginia	334	1.	3	t	+	t	+	2.	6
*W. Va.	35	-	-	-	-	-	-	-	-
N. C.	364	10.	50	t	+	15.	75	27.	135
*S. C.	129	-	-	-	-	-	-	-	-
Georgia	404	50.	404	-	-	-	-	50.	404
*Florida	156	-	-	-	-	-	-	-	-
S. Atl.	1,511	26.8	467	0.1	2	4.5	78	32.1	560
*Kentucky	135	-	-	-	-	-	-	-	-
Tennessee	186	30.	80	-	-	-	-	30.	80
*Alabama	383	-	-	-	-	-	-	-	-
*Miss.	462	-	-	-	-	-	-	-	-
*Arkansas	156	-	-	-	-	-	-	-	-
*Louisiana	190	-	-	-	-	-	-	-	-
Okla.	80	3.	2	-	-	1.	1	4.	3
Texas	440	t	+	-	-	-	-	t	+
S. Central	2,032	-	82	-	-	-	1	-	83
Idaho	67	12.	10	0	0	0	0	20.	17
Colorado	251	10.	28	-	-	-	-	10.	28
*N. Mex.	27	-	-	-	-	-	-	-	-
*Arizona	6	-	-	-	-	-	-	-	-
*Utah	127	-	-	-	-	-	-	-	-
*Nevada	4	-	-	-	-	-	-	-	-
Wash.	6,278	0.5	32	0.5	32	-	-	2.	128
*Oregon	4,326	-	-	-	-	-	-	-	-
*Calif.	11,751	-	-	-	-	-	-	-	-
Far West.	22,837	-	70	-	32	-	-	-	173
U. S.	32,259	6.2	945	0.3	46	0.2	103	8.1	1,206

Approximate percentage of total crop in reporting area, 44.

* Omitted from calculations for U. S. and section percentage loss.

CHERRY

Table 19. Estimated reduction in yield due to brown rot (*Sclerotinia fructicola*), leaf spot (*Coccomyces hiemalis*), virus diseases, and other diseases, 1938.

State	Production tons	Estimated reduction in yield due to diseases							
		Brown rot				Virus diseases			
		%	Tons	%	Tons	%	Tons	%	Tons
Massachusetts		8.	+	1.	+	t	+	11.	+
New York	16,360	1.	167	1.	167	-	-	2.	334
Pennsylvania	6,560	5.	377	8.	604	0.1	8	13.1	989
Ohio	3,630	t	+	8.	316	-	-	8.	316
Indiana		3.	+	3.	+	-	-	6.	+
Illinois		-	-	2.	+	-	-	2.	+
Michigan	14,940	t	+	20.	3,831	0	0	22.	4,214
Wisconsin	9,440	t	+	10.	1,049	0	0	10.	1,049
Iowa		5.	+	0.1	+	-	-	5.1	+
Maryland		3.	+	5.	+	-	-	8.	+
Virginia		10.	+	10.	+	-	-	20.	+
West Virginia		0.5	+	5.	+	-	-	6.	+
N. C.		5.	+	3.	+	-	-	8.	+
Arkansas		t	+	1.	+	-	-	1.	+
Oklahoma		2.	+	3.	+	-	-	8.	+
Montana	470	0	0	t	+	-	-	t	+
Idaho	2,490	0	0	0	0	1.	26	4.	104
Colorado	5,280	-	-	-	-	-	-	1.	53
*Utah	4,270	-	-	-	-	-	-	-	-
Washington	25,500	0.3	78	0.3	78	0.6	156	2.	520
*Oregon	21,400	-	-	-	-	-	-	-	-
*California	28,800	-	-	-	-	-	-	-	-
Twelve States:	139,140	0.7	622	6.6	6,045	0.2	190	8.3	7,579

Percentage of total listed production in States reporting, 73.

* Omitted from calculations for U. S. percentage loss.

APPLE

Table 20. Estimated reduction in yield from bitter rot (*Glomerella cingulata*), black rot (*Phylospora cydoniae*), blotch (*Phyllosticta solitaria*), rusts (*Gymnosporangium* spp.), fire blight (*Bacillus amylovorus*), scab (*Venturia inaequalis*), and other diseases, 1938.

Estimated reduction in yield due to diseases																													
Pro-		duction:																											
		Bitter rot:				Black rot:				Blotch:				Rusts:				Elight:				Scab:				All diseases			
State	1,000 bushels:	%	bu.	%	1,000 bu.	%	bu.	%	1,000 bu.	%	bu.	%	1,000 bu.	%	bu.	%	1,000 bu.	%	bu.	%	1,000 bu.	%	bu.	%					
Maine	858	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
*N. H.	623	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Vermont	475	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Mass.	2,524	0.5	16	1.	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
*R. I.	308	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Connecticut	1,659	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
New York	16,380	-	-	-	-	0.1	17	0.1	17	0.3	51	0.1	17	2.	338	3.	508	3.	508	3.	508	3.	508	3.					
*New Jersey	4,067	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Pa.	9,338	0.2	23	2.	235	0.2	23	0.5	59	2.5	293	12.	1,408	20.4	2,393	20.4	2,393	20.4	2,393	20.4	2,393	20.4	2,393	20.4					
N. Atlantic	36,232	0.1	39	0.8	284	0.1	40	0.3	120	0.9	313	6.4	2,254	10.6	3,739	10.6	3,739	10.6	3,739	10.6	3,739	10.6	3,739	10.6					
Ohio	3,565	0.5	21	0.1	4	0.2	8	1.	42	2.	85	12.	508	15.8	668	15.8	668	15.8	668	15.8	668	15.8	668	15.8					
Indiana	1,410	t	+	t	+	0.1	2	t	+	1.	16	8.	124	9.1	142	9.1	142	9.1	142	9.1	142	9.1	142	9.1					
Illinois	2,912	t	+	3.	97	1.	32	-	-	t	+	6.	194	10.	323	10.	323	10.	323	10.	323	10.	323	10.					
Michigan	7,095	t	+	t	+	t	+	t	+	1.	84	10.	845	16.	1,351	16.	1,351	16.	1,351	16.	1,351	16.	1,351	16.					
Wisconsin	1,107	0	0	t	+	t	+	1.	15	1.	15	25.	379	27.	409	27.	409	27.	409	27.	409	27.	409	27.					
Minnesota	694	0	0	0	0	0	0	0	11	2.	22	25.	280	38.	425	38.	425	38.	425	38.	425	38.	425	38.					
Iowa	1,305	0.1	2	0.5	8	0.1	2	1.	15	5.	76	7.5	114	14.4	220	14.4	220	14.4	220	14.4	220	14.4	220	14.4					
*Missouri	588	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
*S. Dak.	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
*Nebraska	753	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
*Kansas	742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
N. Central	20,272	0.1	23	0.5	109	0.2	44	0.4	83	1.4	298	11.	3,244	16.4	3,538	16.4	3,538	16.4	3,538	16.4	3,538	16.4	3,538	16.4					
*Delaware	1,771	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Maryland	2,118	-	-	0.5	11	-	-	0.2	4	1.5	33	2.	44	4.2	92	4.2	92	4.2	92	4.2	92	4.2	92	4.2					
Virginia	10,080	1.5	171	t	+	t	+	1.7	194	0.3	34	4.	457	11.8	1,347	11.8	1,347	11.8	1,347	11.8	1,347	11.8	1,347	11.8					
W. Va.	4,800	0.1	5	0.1	5	0.1	5	0.4	20	0.5	26	4.	264	6.	306	6.	306	6.	306	6.	306	6.	306	6.					
N. C.	1,961	1.	25	0.5	13	2.	51	1.	25	8.	202	5.	127	22.5	570	22.5	570	22.5	570	22.5	570	22.5	570	22.5					
*S. C.	245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Georgia	964	5.	55	-	-	-	-	1.	11	2.	22	5.	55	13.	143	13.	143	13.	143	13.	143	13.	143	13.					
S. Atlantic	21,939	1.1	256	0.1	29	0.3	56	1.1	254	1.4	317	4.	887	11.	2,458	11.	2,458	11.	2,458	11.	2,458	11.	2,458	11.					

State	Estimated reduction in yield due to diseases											
	Pro- duction:	Bitter rot:	Black rot:	Blotch:	Rusts:	Blight:	Scab:	All diseases				
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	bushels:	%	bu.	%	bu.	%	bu.	%	bu.	%	bu.	%
*Kentucky	801:	-	-	-	-	-	-	-	-	-	-	-
Tennessee	654:	5.	36:	0.1:	1:	t	7:	2.	14:	8.2:	59	-
*Alabama	672:	-	-	-	-	-	-	-	-	-	-	-
*Mississippi	192:	-	-	-	-	-	-	-	-	-	-	-
*Arkansas	364:	-	-	-	-	-	-	-	-	-	-	-
*Louisiana	17:	-	-	-	-	-	-	-	-	-	-	-
Oklahoma	234:	1.	3:	1.	10:	1.	3:	1.	3:	9.	25	-
*Texas	91:	-	-	-	-	-	-	-	-	-	-	-
S. Central	3,025:	-	39:	-	11:	-	3:	-	10:	-	17:	84
Montana	540:	0	0:	0:	0:	0:	0:	3.	17:	t	+	3.
Idaho	3,953:	0	0:	0:	0:	0:	0:	t	+	t	+	1.
Wyoming	42:	0	0:	0:	0:	0:	0:	5.	2:	-	-	5.
Colorado	1,982:	0	0:	0:	0:	0:	0:	-	-	t	+	t
*New Mexico	547:	0	0:	0:	0:	0:	0:	-	-	-	-	-
*Arizona	83:	0	0:	0:	0:	0:	0:	-	-	-	-	-
*Utah	544:	0	0:	0:	0:	0:	0:	-	-	-	-	-
*Nevada	46:	0	0:	0:	0:	0:	0:	-	-	-	-	-
Washington	31,100:	0	0:	0:	0:	0:	0:	0.2:	66:	0.2:	66:	6.
*Oregon	4,142:	0	0:	0:	0:	0:	0:	-	-	-	-	-
*California	7,435:	0	0:	0:	0:	0:	0:	-	-	-	-	-
Far Western	50,414:	0	0:	0:	0:	0:	0:	-	85:	-	66:	-
U. S.	131,882:	0.3:	357:	0.4:	426:	0.1:	151:	0.4:	460:	0.9:	1,023:	4.7:
												5.66:
												10.11:
												863

Percentage of total listed production in States reporting, 82.

* Omitted from calculations for U. S. and section percentage loss.

PEACH

Table 21. Estimated reduction in yield from leaf curl (*Taphrina deformans*), brown rot (*Sclerotinia fructicola*), scab (*Cladosporium carpophilum*), bacterial spot (*Bacterium pruni*), virus diseases, and other diseases, 1938.

Estimated reduction in yield due to diseases													
Pro-		Leaf curl:		Brown rot:		Scab:		Bacterial spot:		Virus diseases:		All diseases:	
duction:		1000:		1000:		1000:		1000:		1000:		1000:	
State:	bu.	%	bu.	%	bu.	%	bu.	%	bu.	%	bu.	%	bu.
*N.H.	19:	-	-	-	-	-	-	-	-	-	-	-	-
Mass.	88:	1.	1:	2.	2:	1.5:	1:	0.1:	+	2.2:	2:	7.	6
*R.I.	27:	-	-	-	-	-	-	-	-	-	-	-	-
Conn.	140:	-	-	10.	18:	-	-	10.	18:	2.	4:	22.	40
N.Y.	1,134:	1.	12:	1.	12:	t	+	t	+	t	+	2.	24
*N.J.	1,172:	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	1,842:	1.5:	33:	10.	218:	3.	65:	t	+	0.1:	2:	15.6:	340
Ohio	481:	1.	5:	5.	26:	2.	11:	0.5:	3:	t	+	8.5:	45
Ind.	144:	t	+	0.5:	1:	t	+	0.2:	+	-	-	0.7:	1
Ill.	1,425:	t	+	5.	86:	2.	34:	10.	172:	-	-	17.	292
Mich.	1,341:	t	+	10.	156:	t	+	2.	31:	t	+	4.	218
Iowa	90:	5.	5:	3.	3:	0	0:	0.1:	1:	-	-	8.1:	9
*Mo.	116:	-	-	-	-	-	-	-	-	-	-	-	-
*Nebr.	72:	-	-	-	-	-	-	-	-	-	-	-	-
*Kans.	43:	-	-	-	-	-	-	-	-	-	-	-	-
*Dela.	304:	-	-	-	-	-	-	-	-	-	-	-	-
Md.	352:	3.	11:	0.5:	2:	-	-	0.5:	2:	0.5:	2:	4.5:	17
Va.	1,161:	1.	12:	4.	50:	t	+	t	+	t	+	7.	87
W.Va.	184:	0.5:	1:	2.	4:	0.5:	1:	-	-	-	-	3.5:	7
N.C.	2,232:	0.5:	13:	8.	206:	1.	26:	1.	26:	-	-	13.5:	348
*S.C.	1,515:	-	-	-	-	-	-	-	-	-	-	-	-
Ga.	5,320:	1.	68:	5.	341:	1.	68:	10.	682:	5.	341:	22.	1,500
*Fla.	68:	-	-	-	-	-	-	-	-	-	-	-	-
*Ky.	352:	-	-	-	-	-	-	-	-	-	-	-	-
Tenn.	586:	0.5:	4:	20.	147:	0	0:	-	-	-	-	20.5:	151
*Ala.	1,705:	-	-	-	-	-	-	-	-	-	-	-	-
*Miss.	1,061:	-	-	-	-	-	-	-	-	-	-	-	-
*Ark.	2,451:	-	-	-	-	-	-	-	-	-	-	-	-
*La.	325:	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	429:	3.5:	17:	3.	15:	1.	5:	4.	19:	t	+	11.5:	56
Texas	964:	t	+	-	-	t	+	t	+	-	-	0.5:	5
Idaho	181:	t	+	0	0:	-	-	0	0:	-	-	11.	22
Colo.	1,388:	-	-	-	-	-	-	0	0:	1.	14:	2.	28
*N.M.	51:	-	-	-	-	-	-	0	0:	-	-	-	-
*Ariz.	22:	-	-	-	-	-	-	0	0:	-	-	-	-
*Utah	564:	-	-	-	-	-	-	0	0:	-	-	-	-
*Nev.	6:	-	-	-	-	-	-	0	0:	-	-	-	-
Wash.	1,428:	0.3:	4:	0.3:	4:	-	-	0	0:	-	-	1.	14
*Ore.	327:	-	-	-	-	-	-	0	0:	-	-	-	-
*Calif.	20,835:	-	-	-	-	-	-	0	0:	-	-	-	-
U.S.	51,945:	0.8:	186:	5.4:	1,291:	0.9:	211:	4.0:	954:	1.5:	365:	13.4:	3,210

Percentage of total listed production in States reporting, 46.

* Omitted from calculations for U. S. percentage loss.

Table 22. Estimated reduction in yield due to leaf spot (*Mycosphaerella fragariae*), leaf scorch (*Diplocarpon earliana*), root diseases, fruit rots (various organisms), and other diseases, 1938.

Estimated reduction in yield due to diseases															
Pro-		Leaf spot				Leaf scorch				Root diseases ^{a/}		Fruit rots		All diseases	
duction:		1,000		1,000		1,000		1,000		1,000		1,000		1,000	
State:	crates:	%	crates:	%	crates:	%	crates:	%	crates:	%	crates:	%	crates:	%	crates:
Vt.	:	5.	+	-	-	-	-	-	-	-	-	5.	+		
Mass.	:	2.	+	-	-	-	-	12.	+	15. ^{b/}	+				
Conn.	:	-	-	-	-	-	-	5.	+	5.	+				
N. Y.	312	t	+	t	+	-	-	1.	3	1.	3				
*N. J.	340	-	-	-	-	-	-	-	-	-	-				
Pa.	350	0.9:	4	0.3:	1	10.	40	0.5:	2	11.7:	47				
Ohio	338	0.5:	2	-	-	-	-	t	+	2. ^{b/}	7				
Ind.	248	t	+	t	+	t	+	1.	3	1.	3				
*Ill.	310	-	-	-	-	-	-	-	-	-	-				
Mich.	464	t	+	t	+	10.	52	-	-	10.	52				
Wis.	200	0.5:	1	1.	2	5.	11	-	-	6.5:	14				
Minn.	:	3.	+	-	-	4.	+	-	-	7.	+				
Iowa	48	3.	2	-	-	-	-	-	-	3.1:	2				
*Mo.	540	-	-	-	-	-	-	-	-	-	-				
N. Dak.	:	t	+	-	-	-	-	-	-	2.	+				
*Kans.	55	-	-	-	-	-	-	-	-	-	-				
*Dela.	234	-	-	-	-	-	-	-	-	-	-				
Md.	446	2.	10	1.	5	3.	15	3.	15	10.	50				
Va.	511	5.	29	2.	12	5.	29	-	-	12.	70				
N. C.	374	15.	81	7.	38	-	-	4.	22	31.	168				
*S. C.	15	-	-	-	-	-	-	-	-	-	-				
*Ga.	24	-	-	-	-	-	-	-	-	-	-				
*Fla.	525	-	-	-	-	-	-	-	-	-	-				
*Ky.	424	-	-	-	-	-	-	-	-	-	-				
Tenn.	702	1.	8	t	+	2.	16	10.	81	13.	105				
*Ala.	244	-	-	-	-	-	-	-	-	-	-				
*Miss.	22	-	-	-	-	-	-	-	-	-	-				
Ark.	846	t	+	1.	9	-	-	t	+	4.	35				
La.	1,100	10.	139	3.	42	-	-	8.	112	21.1:	294				
Okla.	24	3.	1	1.	+	t	+	-	-	7.	2				
*Texas	117	-	-	-	-	-	-	-	-	-	-				
Mont.	:	t	+	-	-	3.	+	-	-	8. ^{b/}	+				
Idaho	:	t	+	t	+	-	-	1.	+	11.	+				
Colo.	:	-	-	-	-	50.	+	-	-	50.	+				
*Utah	84	-	-	-	-	-	-	-	-	-	-				
Wash.	601	0.5:	3	-	-	5.	33	0.5:	3	9. ^{b/}	59				
*Oreg.	1,139	-	-	-	-	-	-	-	-	-	-				
*Calif.	832	-	-	-	-	-	-	-	-	-	-				
U. S.	11,469	3.7:	280	1.5:	109	2.6:	196	3.2:	241	12.1:	911				

Percentage of total listed production in States reporting, 56.

* Omitted from calculations for U. S. percentage loss.

^{a/}All black root rot, except Indiana, all red stele (*Phytophthora* sp.); Maryland, trace for red stele; Oklahoma, red stele and black root rot, each trace; Colorado, 50 percent loss from both diseases.

^{b/}Virus diseases: Massachusetts, 1 percent; Ohio, 1.5 percent, 5000 crates; Montana, 5 percent; Washington, 3 percent, 20,000 crates; U. S., 0.3 percent.

GRAPE

Table 23. Estimated reduction in yield from black rot (*Guignardia bidwellii*), powdery mildew (*Uncinula necator*), downy mildew (*Plasmopara viticola*), and other diseases, 1938.

State	Pro- duction tons	Estimated reduction in yield due to diseases							
		Black rot		Powdery mildew		Downy mildew		All diseases	
		%	Tons	%	Tons	%	Tons	%	Tons
*Maine	30:	-	-	-	-	-	-	-	-
*N. H.	70:	-	-	-	-	-	-	-	-
*Vermont	40:	-	-	-	-	-	-	-	-
Mass.	540:	5.	30	t	+	1.5:	9	8.5:	51
*R. I.	220:	-	-	-	-	-	-	-	-
Connecticut	1,960:	15.	346	-	-	-	-	15.	346
New York	55,600:	2.	1,158	1.	579	1.	579	4.	2,316
*New Jersey	2,800:	-	-	-	-	-	-	-	-
Pa.	15,700:	10.	1,744	t	+	t	+	10.	1,744
N. Atlantic	76,960:	4.2:	3,278	0.7	579	0.8:	588	5.7:	4,457
Ohio	9,800:	3.5:	357	-	-	0.5:	51	4.	408
Indiana	2,200:	10.	244	t	+	-	-	10.	244
*Illinois	6,300:	-	-	-	-	-	-	-	-
Michigan	16,900:	0.1:	17	0.1	17	0.1:	17	0.3:	51
Wisconsin	430:	5.	23	t	+	t	+	5.	23
Minnesota	270:	-	-	-	-	t	+	t	+
Iowa	5,000:	0.1:	5	0.1	5	1.	51	1.3:	66
*Missouri	6,200:	-	-	-	-	-	-	-	-
*Nebraska	3,100:	-	-	-	-	-	-	-	-
*Kansas	3,100:	-	-	-	-	-	-	-	-
N. Central	53,300:	1.8:	646	t	22	0.3:	119	2.2:	792
*Delaware	1,500:	-	-	-	-	-	-	-	-
Maryland	580:	15.	107	1.	7	3.	21	19.	135
Virginia	2,000:	20.	526	-	-	4.	105	24.	631
*W. Va.	430:	-	-	-	-	-	-	-	-
N. C.	6,600:	17.	1,486	2.	175	-	-	24.5:	2,142
*S. C.	1,670:	-	-	-	-	-	-	-	-
*Georgia	1,660:	-	-	-	-	-	-	-	-
Florida	820:	5.	46	-	-	-	-	10.	92
S. Atlantic	15,260:	16.7:	2,165	1.4	182	1.	126	23.1:	3,000
*Kentucky	2,390:	-	-	-	-	-	-	-	-
Tennessee	1,590:	25.	530	t	+	t	+	25.	530
*Alabama	1,400:	-	-	-	-	-	-	-	-
*Mississippi	250:	-	-	-	-	-	-	-	-
Arkansas	4,800:	t	+	-	-	-	-	t	+
*Louisiana	50:	-	-	-	-	-	-	-	-
Oklahoma	2,500:	7.	188	-	-	-	-	7.	188
Texas	2,000:	t	+	-	-	-	-	t	+
S. Central	14,980:	6.2:	718	-	+	-	+	6.2:	718
Idaho	580:	0	0	t	+	0	0	5.	31
*Colorado	650:	-	-	-	-	-	-	-	-
*New Mexico	1,240:	-	-	-	-	-	-	-	-
*Arizona	730:	-	-	-	-	-	-	-	-
*Utah	860:	-	-	-	-	-	-	-	-
*Nevada	100:	-	-	-	-	-	-	-	-
Washington	5,200:	0	0	0.3	16	0	0	1.	53
*Oregon	2,400:	-	-	-	-	-	-	-	-
*California	2,331,000:	-	-	-	-	-	-	-	-
Far Western	2,342,760:	-	-	-	-	-	-	-	-
U. S.	2,503,260:	4.7:	6,807	0.6	799	0.6:	833	6.3:	9,051

Percentage of total listed production in States reporting: for whole country, 5; outside of Far West, 80.

* Omitted from calculations for U. S. and section percentage loss.

